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21 UNITED STATES DISTRICT COURT  
 22 CENTRAL DISTRICT OF CALIFORNIA

23 UNITED STATES OF AMERICA,  
 THE STATE OF CALIFORNIA, and  
 24 THE CALIFORNIA HAZARDOUS  
 SUBSTANCE ACCOUNT,

25 Plaintiffs,

26 v.  
 27  
 28

) CIVIL ACTION NO. 91 6520

) JGD WRx

) THIRD PARTIAL CONSENT DECREE

1	CHEVRON CHEMICAL COMPANY;	)
	CHEVRON PIPE LINE CO.; CHEVRON	)
2	USA, INC.; TEXACO INC.;	)
	ATLANTIC RICHFIELD COMPANY;	)
3	AMERICAN NATIONAL CAN; EXXON	)
	CORPORATION; MCDONNELL DOUGLAS	)
4	CORPORATION; UNION OIL COMPANY	)
	OF CALIFORNIA; NORRIS	)
5	INDUSTRIES, INC., NI	)
	INDUSTRIES, INC., a MASCO	)
6	INDUSTRIES subsidiary; SHELL	)
	OIL COMPANY; ORYX ENERGY	)
7	COMPANY; OCCIDENTAL PETROLEUM	)
	CORPORATION; MOBIL OIL	)
8	CORPORATION; SOUTHERN	)
	CALIFORNIA GAS COMPANY; CROWN	)
9	BEVERAGE PACKAGING, INC.	)
	(formerly named Continental	)
10	Beverage Packaging, Inc. and	)
	successor to Continental Can	)
11	Company, Inc.); SANTE FE	)
	ENERGY COMPANY/C.W.O.D.;	)
12	MARTIN MARIETTA CORPORATION on	)
	behalf of COMMONWEALTH	)
13	ALUMINUM CORPORATION (formerly	)
	known as MARTIN MARIETTA	)
14	ALUMINUM, INC.); UNION PACIFIC	)
	RESOURCES COMPANY; CONOCO	)
15	INC.; DOUGLAS OIL CO.; SOULE-	)
	ARNON LIQUIDATING AGENCY;	)
16	GENERAL MOTORS CORPORATION;	)
	LOCKHEED CORPORATION, and	)
17	LOCKHEED AERONAUTICAL SYSTEMS	)
	COMPANY DIVISION; LONG BEACH	)
18	OIL DEVELOPMENT COMPANY;	)
	BETHLEHEM STEEL CORPORATION;	)
19	ALUMINUM COMPANY OF AMERICA;	)
	SOUTHERN CALIFORNIA RAPID	)
20	TRANSIT DISTRICT; ALLIED	)
	SIGNAL, INC. for GARRETT	)
21	AIRESEARCH and BENDIX; KEYSOR	)
	CENTURY CORPORATION; THE STROH	)
22	BREWERY COMPANY; UNIROYAL,	)
	INC. by the UNIROYAL GOODRICH	)
23	TIRE COMPANY as successor in	)
	interest; AMERICAN AIRLINES,	)
24	INC.; BETZ LABORATORIES, INC.;	)
	DEPARTMENT OF WATER AND POWER	)
25	of the CITY of LOS ANGELES;	)
	HENKEL CORPORATION for itself	)
26	and for EMERY CHEMICALS	)
	DIVISION; KERN FOODS, INC.	)
27	SHAREHOLDERS' LIQUIDATING	)
	TRUST; SOUTHERN CALIFORNIA	)
28	EDISON COMPANY; MITCHELL	)

1	ENERGY CORPORATION; REYNOLDS	)
	METALS COMPANY; CALGON	)
2	CORPORATION; PPG INDUSTRIES,	)
	INC.; BORG-WARNER CORPORATION	)
3	for itself and for BYRON	)
	JACKSON PUMP DIVISION; PARKER-	)
4	HANNIFIN CORPORATION; E.B.	)
	King for SOUTHERN CALIFORNIA	)
5	CHEMICAL COMPANY; LIBERTY	)
	VEGETABLE OIL COMPANY; UNITED	)
6	STATES BRASS CORPORATION,	)
	d/b/a EASTMAN CENTRAL;	)
7	INGERSOLL-RAND COMPANY for	)
	itself and for PROTO TOOL	)
8	COMPANY, INC.; LONG BEACH	)
	UNIT, WILMINGTON OIL FIELD,	)
9	CALIFORNIA (CITY OF LONG	)
	BEACH, UNIT OPERATOR: THUMS	)
10	LONG BEACH COMPANY, AGENT FOR	)
	FIELD CONTRACTOR); GROW GROUP	)
11	INC. on behalf of AMERITONE	)
	PAINT CORPORATION and TREWAX	)
12	DIVISION; XEROX CORPORATION;	)
	MENASCO AEROSYSTEMS DIVISION	)
13	CALIFORNIA OPERATION DIVISION	)
	OF COLTEC INDUSTRIES INC.; TRW	)
14	INC.; REICHOLD CHEMICALS,	)
	INC.; HOLLYTEX CARPET	)
15	MILLS/USG CORPORATION; CROWLEY	)
	MARITIME CORPORATION on behalf	)
16	of its wholly owned	)
	subsidiaries CROWLEY TOWING &	)
17	TRANSPORTATION CO. and CROWLEY	)
	ENVIRONMENTAL SERVICES	)
18	CORPORATION; CONTAINER	)
	CORPORATION OF AMERICA;	)
19	SOUTHERN PACIFIC	)
	TRANSPORTATION COMPANY; NL	)
20	INDUSTRIES, INC. sued herein	)
	as NL METALS; SENIOR	)
21	ENGINEERING COMPANY; PROMARK	)
	GROUP WEST for MAJOR PAINT	)
22	COMPANY; H & L TOOTH COMPANY	)
	for PRECISION HEAT TREATING	)
23	COMPANY and HI-PRODUCTION	)
	FORGE COMPANY; ANCHORLOK	)
24	CORPORATION; COOPER DRUM CO.	)
	for SUPERIOR DRUM; HUGHES	)
25	AIRCRAFT COMPANY; SUPERIOR	)
	INDUSTRIES INTERNATIONAL,	)
26	INC.; FLINT INK CORPORATION;	)
	THE TIMES MIRROR COMPANY, LOS	)
27	ANGELES TIMES DIVISION and	)
	TIMES MIRROR PRESS; HUNT-	)
28	WESSON, INC.; WATERFORD	)

1	WEDGEWOOD USA INC. for	)
	FRANCISCAN CERAMICS; DELTA AIR	)
2	LINE, INC., for itself and	)
	for WESTERN AIRLINES; EMERSON	)
3	& CUMING, INC.; B&C PLATING	)
	COMPANY; INTERNATIONAL PAPER	)
4	COMPANY; ROCKWELL	)
	INTERNATIONAL CORPORATION; THE	)
5	PROCTER AND GAMBLE	)
	MANUFACTURING COMPANY; DRESSER	)
6	INDUSTRIES INC. for MAGCOBAR	)
	AND PACIFIC PUMPS; MAYTAG	)
7	CORPORATION;	)
	BRIDGESTONE/FIRESTONE, INC.;	)
8	CARNATION COMPANY; WELCHES	)
	OVERALL CLEANING COMPANY,	)
9	INC.; DUNN-EDWARDS	)
	CORPORATION; TRANSPORTATION	)
10	LEASING CO.; CLOUGHERTY	)
	PACKING COMPANY; "21"	)
11	INTERNATIONAL HOLDINGS, INC.,	)
	formerly GENERAL FELT	)
12	INDUSTRIES; FERRO CORPORATION	)
	for itself and for PRODUCTOL	)
13	CHEMICAL DIVISION; SAFEWAY	)
	INC.; WILLAMETTE INDUSTRIES,	)
14	INC.; ARATEX SERVICES, INC.	)
	for and d/b/a RED STAR	)
15	INDUSTRIAL SERVICE; OIL AND	)
	SOLVENT PROCESS CO., a	)
16	subsidiary of Chemical Waste	)
	Management, Inc.; BERWIND	)
17	RAILWAY SERVICE COMPANY;	)
	LUXFER USA LIMITED; MCAULEY	)
18	LCX CORPORATION, formerly	)
	McAuley Oil Company; FEDERAL	)
19	EXPRESS CORPORATION; UNITED	)
	AIR LINES, INC.; SURFACE	)
20	PROTECTION INDUSTRIES, INC. on	)
	behalf of ZOLATONE PROCESS,	)
21	INC.; WILMINGTON LIQUID BULK	)
	TERMINALS; TREE ISLAND	)
22	INDUSTRIES LTD.; GENERAL LATEX	)
	AND CHEMICAL CORPORATION;	)
23	GOULD INC.; DECALTA OIL	)
	COMPANY; VEST, INC. (formerly	)
24	known as BERNARD EPPS & CO.);	)
	BEHR PROCESS CORPORATION;	)
25	ARMCO INC.; BORDEN, INC.;	)
	SOCO-WESTERN CHEMICAL	)
26	CORPORATION for WESTERN	)
	CHEMICAL & MANUFACTURING CO.;	)
27	FREEPORT-McMORAN OIL AND GAS	)
	COMPANY, a division of	)
28	Freeport-McMoRan Inc.,	)



1	successor by mergers to PETRO-	)
	LEWIS CORPORATION; REISNER	)
2	METALS, INC.; SUPRACOTE, INC.;	)
	KENOSHA AUTO TRANSPORT	)
3	CORPORATION; BLACKTOP	)
	MATERIALS COMPANY; GATX	)
4	TERMINALS CORPORATION; VAN	)
	WATERS & ROGERS INC.;	)
5	PRIMERICA HOLDINGS, INC.;	)
	COOPER & BRAIN, INC.; UNITED	)
6	STATES GYPSUM COMPANY;	)
	LONGVIEW FIBRE COMPANY;	)
7	CONOPCO, INC.; MASTER	)
	PROCESSING CORPORATION;	)
8	PLYWOOD PANELS INC., formerly	)
	DAVIDSON P.W.P.; PACKAGING	)
9	CORPORATION OF AMERICA for	)
	EKCO PRODUCTS; CALMAT CO.;	)
10	AMTRAK - NATIONAL RAILROAD	)
	PASSENGER CORPORATION; FORD	)
11	MOTOR COMPANY; RLL CORPORATION	)
	(formerly known as MAX FACTOR	)
12	& CO.); WESTINGHOUSE ELECTRIC	)
	CORPORATION for itself and for	)
13	SEVEN-UP BOTTLING CO. OF L.A.;	)
	COCA-COLA BOTTLING COMPANY OF	)
14	LOS ANGELES; INTERNATIONAL	)
	EXTRUSION CORPORATION; HELLMAN	)
15	PROPERTIES; OWENS-ILLINOIS,	)
	INC.. on behalf of itself and	)
16	its present and former	)
	subsidiaries Libbey Glass,	)
17	Inc., Owens-Brockway Glass	)
	Container Inc. and Nekoosa	)
18	Packaging Corporation,	)
	successor by merger to OI Los	)
19	Angeles STS Inc.; UNITED	)
	PARCEL SERVICE, INC.;	)
20	FIBREBOARD CORPORATION; DEFT,	)
	INC.; JAMES RIVER II, INC. for	)
21	CROWN ZELLERBACH, successor in	)
	interest with respect to	)
22	Sheila Street and Garfield	)
	Avenue Plants; GAYLORD	)
23	CONTAINER CORPORATION for	)
	CROWN ZELLERBACH, successor in	)
24	interest for Baldwin Park	)
	Boulevard Plant; DEUTSCH	)
25	COMPANY; ROYAL INDUSTRIES;	)
	ALCOA COMPOSITES, INC., on	)
26	behalf of WESLOCK DIVISION;	)
	CITY OF INGLEWOOD; CITY OF LOS	)
27	ANGELES; LATCHFORD GLASS	)
	COMPANY; ROYAL ALUMINUM;	)
28	MCKESSON WATER PRODUCTS	)

1 COMPANY formerly SPARKLETT'S )  
2 DRINKING WATER CORP.; RENTA )  
3 UNIFORM; CHAMPION )  
4 INTERNATIONAL CORPORATION for )  
5 itself and for ST. REGIS PAPER )  
6 COMPANY; PRUDENTIAL OVERALL )  
7 SUPPLY; PACIFIC TUBE COMPANY; )  
8 HYDRIL COMPANY; STARKIST )  
9 FOODS, INC.; GEORGIA-PACIFIC )  
10 CORPORATION; CAPITOL METALS )  
11 CO., INC.; B.J. SERVICES )  
12 COMPANY (formerly B.J. Service )  
13 Equipment Company) for itself )  
14 and for B.J. HUGHES; INLAND )  
15 CONTAINER CORPORATION; THE )  
16 HERTZ CORPORATION; CHRYSLER )  
17 CORPORATION for itself and for )  
18 NU CAR PREP SYSTEMS, INC.; )  
19 BLACK AND DECKER CORPORATION )  
20 on behalf of MCCULLOCH )  
21 CORPORATION; INTERSTATE BRANDS )  
22 CORPORATION; GENERAL ELECTRIC )  
23 COMPANY; CHROME CRANKSHAFT )  
24 CO., INC.; TELEDYNE CAST )  
25 PRODUCTS; TELEDYNE LAARS; )  
26 TELEDYNE LINAIR; TELEDYNE )  
27 MICROELECTRONICS; TELEDYNE )  
28 POST; TELEDYNE SPRAGUE )  
ENGINEERING; ATOCHEM NORTH )  
AMERICA, INC. (PUREX) for )  
itself and for M & T METALS, )  
M & T PLATING, M & T )  
CHEMICALS, AND PENNWALT; )  
ARMSTRONG WORLD INDUSTRIES, )  
INC.; SHASTA BEVERAGES, INC.; )  
MYRDIN INC.; VOI SHAN; )  
SOUTHWEST FOREST INDUSTRIES, )  
INC.; PERVO PAINT COMPANY; THE )  
FLINTKOTE COMPANY; BASF )  
CORPORATION on behalf of )  
INMONT INK CORPORATION; GRANT )  
OIL TOOL COMPANY (a MASCO )  
INDUSTRIES CO., d/b/a MASX )  
ENERGY SERVICES GROUP, INC.); )  
NORRIS INDUSTRIES, INC./WEISER )  
LOCK DIVISION; BIRD CORP. )  
(BIRD AND SON INC.); COCA COLA )  
USA, a division of THE COCA- )  
COLA COMPANY; )

26 Defendants. )  
27 )  
28 )

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**THIRD PARTIAL CONSENT DECREE**

WHEREAS, the United States of America (hereinafter "United States"), on behalf of the Administrator of the United States Environmental Protection Agency (hereinafter "EPA"), the State of California on behalf of the Department of Toxic Substances Control (hereinafter "the State"), and the California Hazardous Substance Account, have filed concurrently with this Third Partial Consent Decree a complaint in this matter pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601, et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613 (1986) (hereinafter "CERCLA"). The complaint includes pendent claims by the State pursuant to the Hazardous Substance Account Act, California Health and Safety Code § 25300, et seq., California Civil Code § 3494, and California Health and Safety Code §§ 205 and 206. The complaint seeks to compel the Defendants (those parties identified in paragraph II.B of Section II (Parties Bound) and hereinafter referred to as "Defendants") to perform certain remedial actions and to recover certain response costs that have been and will be incurred by the United States and the State in response to alleged releases and threatened releases of hazardous substances from the facility known as the Operating Industries, Inc. site (hereinafter "OII Site" or the "Site") located at 900 Potrero Grande Drive, Monterey Park, California.

WHEREAS, the United States, the State, and the California Hazardous Substance Account (hereinafter "Plaintiffs") allege

1 that the Operating Industries, Inc. landfill is a facility as  
2 defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

3 WHEREAS, Plaintiffs allege that the Defendants are persons,  
4 as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21) and  
5 wastes and constituents thereof generated by the Defendants sent  
6 to and disposed of at the Site, are hazardous substances, as  
7 defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601(14), and  
8 California Health and Safety Code §§ 25316 and 25317.

9 WHEREAS, Plaintiffs allege that the past, present, and  
10 potential migrations of hazardous substances from the Site  
11 constitute actual and threatened releases, as defined in Section  
12 101(22) of CERCLA, 42 U.S.C. § 9601(22), and California Health  
13 and Safety Code §§ 25320 and 25321, and the Defendants are liable  
14 under Section 107(a) of CERCLA, 42 U.S.C. § 9607(a), and  
15 California Health and Safety Code § 25360.

16 WHEREAS, pursuant to Sections 121 and 122 of CERCLA, 42  
17 U.S.C. §§ 9621 and 9622, Plaintiffs and the Defendants have each  
18 stipulated and agreed to the making and entry of this Third  
19 Partial Consent Decree (hereinafter "Decree" or "Consent Decree")  
20 prior to the taking of any testimony, and in full settlement with  
21 Defendants for the claims raised in the complaint.

22 WHEREAS, Plaintiffs and the Defendants agree that the  
23 settlement of the claims raised in the complaint against the  
24 Defendants and entry of this Consent Decree is in good faith, in  
25 an effort to avoid expensive and protracted litigation, without  
26 any admission or finding of liability or fault as to any  
27 allegation or matter.  
28

1 NOW THEREFORE, it is ORDERED, ADJUDGED, AND DECREED as fol-  
2 lows:

3  
4 I. JURISDICTION

5 The Court has jurisdiction over the subject matter of this  
6 action pursuant to 28 U.S.C. §§ 1331 and 1345, and CERCLA, 42  
7 U.S.C. § 9601, et seq. and pendent jurisdiction over the claims  
8 arising under the laws of California. Solely for the purposes of  
9 this Consent Decree and the underlying complaint, each Defendant  
10 waives service of summons and agrees to submit to the  
11 jurisdiction of this Court and to venue in this District.  
12 Defendants shall not challenge this Court's jurisdiction to enter  
13 and enforce this Consent Decree. Settling Defendants agree not  
14 to challenge or object to entry of this Decree by the Court  
15 unless the United States has notified the Defendants in writing  
16 that it no longer supports entry of the Decree or that it seeks  
17 to modify the Decree.

18  
19 II. PARTIES BOUND

20 A. The parties to this Consent Decree are the United  
21 States of America, the State, the California Hazardous Substance  
22 Account, and the Defendants.

23 B. Defendants are defendants that have agreed to pay the  
24 specified amounts under the Schedules set forth in Exhibit C and  
25 are identified in Exhibit C ("Cash Defendants"), and defendants  
26 that have agreed to undertake the Work and certain other  
27 obligations set forth in this Decree and are identified in  
28 Exhibit D ("Work Defendants").

1 C. This Consent Decree applies to and is binding upon the  
2 United States, the State, the California Hazardous Substance  
3 Account, and upon Defendants and Defendants' agents, successors  
4 and assigns, and upon all Contractors or other persons acting  
5 under or for Defendants. Any change in ownership, partnership  
6 status or corporate status of a Defendant including, but not  
7 limited to, any transfer of assets or real or personal property,  
8 shall in no way alter such Defendant's responsibilities under  
9 this Consent Decree. Each Defendant shall be responsible and  
10 shall remain responsible for carrying out all activities required  
11 of that Defendant under this Consent Decree. All actions taken  
12 by the State pursuant to this Decree, including all approvals,  
13 reservations of rights, and covenants not to sue are solely those  
14 of the California Department of Toxic Substances Control (DTSC)  
15 and of no other agency except that the California Attorney  
16 General also covenants not to sue the Defendants as provided in  
17 Section XXIV (Covenants Not To Sue, page 83).

18 D. Work Defendants shall provide a copy of this Consent  
19 Decree and shall provide all relevant additions to this Decree,  
20 to each person, including all contractors and subcontractors,  
21 retained to perform the Work required by this Consent Decree and  
22 to each person representing any Work Defendant with respect to  
23 the Site or the Work and shall condition any contract for the  
24 Work upon compliance with this Consent Decree. Work Defendants  
25 shall nonetheless be responsible for ensuring that their  
26 contractors and subcontractors perform the Work contemplated  
27 herein in accordance with this Consent Decree. With regard to  
28 the activities undertaken pursuant to this Consent Decree, each



1 contractor and subcontractor shall be deemed to be in a  
2 contractual relationship with the Work Defendants within the  
3 meaning of Section 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3).

4 E. Work Defendants shall be jointly and severally  
5 responsible for the performance of the Work Defendants'  
6 obligations required by this Decree. In the event of the  
7 inability to pay or insolvency of any one or more of the Work  
8 Defendants, regardless of whether or not that Work Defendant or  
9 Work Defendants enter into formal bankruptcy proceedings, or in  
10 the event that for any other reason one or more of the Work  
11 Defendants do not participate in the implementation of the Work,  
12 the remaining Work Defendants agree and commit to complete the  
13 Work and activities provided for in this Decree.

### 14 15 III. DENIAL OF LIABILITY

16 The Defendants deny any and all legal or equitable liability  
17 under any federal, state, or local statute, regulation,  
18 ordinance, or common law for any response costs, damages or  
19 claims caused by or arising out of conditions at or arising from  
20 the Site. By entering into this Decree, or by taking any action  
21 in accordance with it, Defendants do not admit any allegations  
22 contained herein or in the complaint, nor do Defendants admit  
23 liability for any purpose or admit any issues of law or fact or  
24 any responsibility for the alleged release or threat of release  
25 of any hazardous substance into the environment. Nothing in this  
26 Section shall alter Defendants' agreement not to challenge the  
27 Court's jurisdiction as set forth in Section I (Jurisdiction,  
28 page 3).

1           IV.       SITE BACKGROUND

2           The following is a summary of the Site background as alleged  
3 by the United States and the State which, for the purposes of  
4 this Decree, Defendants neither admit nor deny:

5           A.    The Operating Industries, Inc. landfill is a 190-acre  
6 facility located at 900 Potrero Grande Drive, Monterey Park,  
7 California. The Site operated from 1948 through 1984, and over  
8 the course of its operation, accepted industrial solid, liquid  
9 and hazardous wastes and municipal trash. Wastes accepted by OII  
10 include hazardous substances as defined in Section 101(14) of  
11 CERCLA, 42 U.S.C. § 9601(14), and California Health and Safety  
12 Code §§ 25316 and 25317.

13          B.    The Site is located on the southwestern flank of the La  
14 Merced hills (also called the Montebello hills), and is divided  
15 by California Highway 60 (Pomona Freeway), which runs roughly  
16 east-west through the site, dividing it into a 45-acre North Par-  
17 cel and 145-acre South Parcel. The Site is located at the bound-  
18 ary between the San Gabriel groundwater basin to the north and  
19 the Los Angeles Central groundwater basin to the south. The im-  
20 portant water-bearing units underlying the Los Angeles and San  
21 Gabriel Basins, as well as the Site, are from oldest to youngest,  
22 upper Pliocene Pico Formation, lower Pleistocene San Pedro Forma-  
23 tion, upper Pleistocene older alluvium (including "terrace  
24 gravels"), and the Recent Alluvium (California Department of  
25 Water Resources, 1961, 1966). The San Pedro Formation contains  
26 the five major aquifers of the Los Angeles Central Basin and the  
27 San Gabriel Basin, the Jackson, Hollydale, Lynwood, Silverado and  
28 Sunnyside aquifers. The lower Pliocene Repetto formation and

1 older formations are found at depths greater than 1500 feet. The  
2 Site is approximately one mile west of the Whittier Narrows  
3 groundwater recharge area and the Rio Hondo River.

4 C. The Site was proposed for inclusion on the National  
5 Priorities List (NPL) in October 1984, and was subsequently  
6 placed on the NPL in May 1986, in accordance with Section  
7 105(a)(8) of CERCLA, 42 U.S.C. § 9605(a)(8).

8 D. The contaminants found at the Site include hazardous  
9 substances as defined by Section 101(14) of CERCLA, 42 U.S.C.  
10 § 9601(14) or California Health and Safety Code §§ 25316 and  
11 25317.

12 E. There have been releases of hazardous substances from  
13 the Site and the Site poses numerous threats to human health and  
14 the environment. The population in proximity to the Site include  
15 the nearby residents of the City of Montebello and the City of  
16 Monterey Park, those who travel on the section of the Pomona  
17 Freeway which transects the site, and workers in the several  
18 businesses located on or near the Site.

19 F. The EPA is currently performing the Remedial  
20 Investigation/Feasibility Study ("RI/FS") at the Site. The RI/FS  
21 was begun in 1984. When the RI/FS is completed, it will result  
22 in the selection, design and implementation of a final remedy for  
23 the Site.

24 G. EPA has identified three operable units to date: Site  
25 Control and Monitoring (SCM); Leachate Management (LM); and Gas  
26 Migration Control and Landfill Cover (Gas). The Gas Operable  
27 Unit is the subject of this Consent Decree. The first two  
28 operable units (SCM and LM) were the subject of a prior

1 settlement, memorialized in a partial Consent Decree captioned  
2 United States et al. v. Chevron Chemical Company, et al., No. CV  
3 88 7196 (MRP)Kx, and entered by the Court on May 11, 1989 (the  
4 First Decree). Additional parties have signed a Second Partial  
5 Consent Decree (the Second Decree) to resolve their liability for  
6 the same matters addressed in the First Decree. The Second  
7 Partial Consent Decree was entered by the Court on September 17,  
8 1991.

9  
10 **V. DEFINITIONS**

11 Unless otherwise expressly provided, terms used in this  
12 Consent Decree which are defined in CERCLA or in regulations  
13 promulgated under CERCLA shall have the meaning assigned to them  
14 therein. Whenever terms listed below are used in this Consent  
15 Decree or its Exhibits, the following definitions shall apply:

- 16 A. "Cash Defendants" shall mean the Defendants identified  
17 in Exhibit C, that have agreed to pay the amounts  
18 specified in the Schedule(s) set forth in Exhibit C.
- 19 B. "CERCLA" shall mean the Comprehensive Environmental  
20 Response, Compensation, and Liability Act of 1980, as  
21 amended, 42 U.S.C. § 9601, et seq.
- 22 C. "Consent Decree" or "Decree" shall mean this Third  
23 Partial Consent Decree and its Exhibits.
- 24 D. "Construction Completion Report" shall mean the Report  
25 to be prepared by the Work Defendants and submitted to  
26 EPA pursuant to Section 5.5.8 of the Scope of Work.
- 27 E. "Contractor" shall mean the individual, company or com-  
28 panies retained by or on behalf of the Work Defendants

1 to undertake and complete the Work.

2 F. "Day" shall mean a calendar day unless expressly stated  
3 to be a working day. "Working day" shall mean a day  
4 other than a Saturday, Sunday or Federal holiday. In  
5 computing any period of time under this Consent Decree,  
6 where the last day would fall on a Saturday, Sunday, or  
7 Federal holiday, the period shall run until the close  
8 of business of the next working day.

9 G. "Defendants" shall include both the Cash Defendants and  
10 the Work Defendants, as defined herein and as listed in  
11 Exhibits C and D, respectively, to this Consent Decree.

12 H. "DTSC" shall mean the California Department of Toxic  
13 Substances Control, the successor entity to the  
14 California Department of Health Services.

15 I. "EPA" shall mean the United States Environmental  
16 Protection Agency and any successor departments or  
17 agencies of the United States.

18 J. "Excluded Work" shall mean the Cover Protection  
19 Component of the Cover System for the North Slope of  
20 the South Parcel, the Thermal Destruction Facility, and  
21 the North Parcel, as those terms are defined in Section  
22 VIII (Excluded Work, page 29) and in the Scope of Work.

23 K. "Excluded Work Completion Report" shall mean the Report  
24 to be prepared by the Work Defendants and submitted to  
25 EPA pursuant to Section 5.8 of the Scope of Work.

26 L. "Exhibit A" shall mean the Gas Record of Decision, as  
27 defined below, for the Gas Operable Unit, attached  
28 hereto.

- 1 M. "Exhibit B" shall mean the Scope of Work, as defined  
2 below, for the Gas Operable Unit, attached hereto.
- 3 N. "Exhibit C" shall mean the list of Cash Defendants and  
4 schedule of payments to be made by them, attached  
5 hereto.
- 6 O. "Exhibit D" shall mean the list of Work Defendants  
7 attached hereto.
- 8 P. "Exhibit E" shall mean the Third Partial Consent Decree  
9 1991 Volumetric List attached hereto.
- 10 Q. "Exhibit F" shall mean the List of Settling  
11 Subsidiaries, Divisions, and Affiliated Entities  
12 attached hereto.
- 13 R. "First Decree" shall mean the first Partial Consent  
14 Decree, captioned United States et al. v. Chevron  
15 Chemical Company, et al., No. CV 88 7196 (MRP)Kx, and  
16 entered by the Court on May 11, 1989.
- 17 S. "Future Oversight Costs" shall mean all costs incurred  
18 by the EPA and other agencies and departments of the  
19 United States, by the State, and by contractors for  
20 either of them in oversight of the Work and Excluded  
21 Work. Future Oversight Costs shall include: indirect  
22 costs, payroll costs, contractor costs, travel costs,  
23 laboratory costs, the costs incurred pursuant to  
24 Section XIV (Access, page 41), and the costs of  
25 reviewing or developing Plans, Reports and other items  
26 pursuant to this Consent Decree, verifying the Work or  
27 Excluded Work, or otherwise implementing or enforcing  
28 this Consent Decree, from and after the date of entry

1 of this Decree. Future Oversight Costs do not include  
2 any other cost incurred by the EPA, other agencies or  
3 departments of the United States, the State, or  
4 contractors of either of them, including, but not  
5 limited to: (1) all costs incurred in the performance  
6 of the Remedial Investigation/Feasibility Study at the  
7 Site; (2) all costs associated with emergency removals,  
8 or additional work deemed necessary or approved by EPA;  
9 (3) all costs incurred in oversight of the Gas Operable  
10 Unit which are not in oversight of the Work or the  
11 Excluded Work; (4) all costs for oversight of any other  
12 operable unit; and (5) all costs for oversight of the  
13 final remedy at the Site.

14 T. "Gas Operable Unit" shall mean the Gas Migration  
15 Control and Landfill Cover Operable Unit, as described  
16 in the Gas Record of Decision, as amended on September  
17 28, 1990.

18 U. "Gas Record of Decision" or "Gas ROD" shall mean the  
19 Record of Decision relating to the Gas Migration  
20 Control and Landfill Cover Operable Unit at the Site  
21 signed by the EPA Region IX Regional Administrator on  
22 September 30, 1988, as amended on September 28, 1990,  
23 which describes the Gas Operable Unit and which is  
24 attached as Exhibit A.

25 V. "National Contingency Plan" or "NCP" shall refer to the  
26 National Oil and Hazardous Substances Pollution Contin-  
27 gency Plan promulgated pursuant to Section 105 of  
28 CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part

1 300.

2 W. "OII Site" or the "Site" shall mean the "facility," as  
3 that term is defined at Section 101(9) of CERCLA, 42  
4 U.S.C. § 9601(9), and shall mean the landfill located  
5 at 900 Potrero Grande Drive in Monterey Park,  
6 California.

7 X. "Oversight" shall mean inspection by the EPA, the  
8 United States Army Corps of Engineers (USACE), their  
9 contractors, or the State and their representatives, of  
10 remedial work and all other actions necessary to verify  
11 the adequacy of performance of activities and of the  
12 Plans, Reports and other items relating to the OII Site  
13 performed or submitted by Work Defendants pursuant to  
14 this Decree.

15 Y. "Parties" shall mean the United States, the State and  
16 the Defendants.

17 Z. "Past Response Costs" shall mean: (1) all costs,  
18 including, but not limited to, interest and indirect  
19 costs, that the United States has incurred with regard  
20 to the Site beginning on June 1, 1988 through December  
21 31, 1990, but excluding oversight expenses for the  
22 First Decree and the Second Decree paid or to be paid  
23 by the persons who are Defendants under those Decrees;  
24 and (2) all costs, including, but not limited to,  
25 interest and indirect costs, that the State and the  
26 California Hazardous Substance Account have incurred  
27 with regard to the Site beginning on June 1, 1988  
28 through December 31, 1990.



1 AA. "Performance Standards" shall mean those cleanup  
2 standards, standards of control, and other substantive  
3 requirements, criteria or limitations, set forth in  
4 Exhibit A (Gas ROD), Exhibit B (Scope of Work), and  
5 Section VII of this Decree (Work to be Performed, page  
6 17).

7 AB. "Plaintiffs" shall mean the United States, the State,  
8 and the California Hazardous Substance Account.

9 AC. "Plan(s)" shall mean the plans and designs developed by  
10 the Work Defendants which detail the elements of the  
11 Work to be conducted pursuant to this Consent Decree.

12 AD. "Progress Report" shall mean the Report(s) prepared by  
13 Work Defendants pursuant to paragraph VII.C.4.b (on  
14 page 26) of Section VII (Work To Be Performed).

15 AE. "RCRA" shall mean the Solid Waste Disposal Act, as  
16 amended, 42 U.S.C. § 6901, et seq. (also known as the  
17 Resource Conservation and Recovery Act).

18 AF. "Report(s)" shall mean the Reports developed by the  
19 Work Defendants in compliance with this Decree,  
20 detailing the Work and the results of its  
21 implementation.

22 AG. "Scope of Work" or "SOW" shall mean the scope of work  
23 for implementation of the Work at the Site, as set  
24 forth in Exhibit B to this Consent Decree and any  
25 modifications thereto pursuant to this Decree.

26 AH. "Second Decree" shall mean the Second Partial Consent  
27 Decree which has been executed by certain companies  
28 identified as potentially responsible parties to

1 resolve their liability for the same matters addressed  
2 in the First Decree and entered by the Court on  
3 September 17, 1991.

4 AI. "State" shall mean the State of California on behalf of  
5 the Department of Toxic Substances Control.

6 AJ. "United States" shall mean the United States of  
7 America.

8 AK. "USACE" shall mean the United States Army Corps of  
9 Engineers.

10 AL. "Waste Material" shall mean (1) any "hazardous  
11 substance" as defined under Section 101(14) of CERCLA,  
12 42 U.S.C. § 9601(14); (2) any "pollutant or  
13 contaminant" under Section 101(33) of CERCLA, 42 U.S.C.  
14 § 9601(33); and (3) any "hazardous substance" as  
15 defined under California Health and Safety Code  
16 §§ 25316 and 25317.

17 AM. "Work" shall mean the implementation, in accordance  
18 with this Decree of the tasks and activities defined  
19 herein, including but not limited to: Section VII  
20 (Work To Be Performed, page 17); Section IX (Additional  
21 Work, page 34); Section XVI (Retention of Records, page  
22 48); Section XV (Data Exchange: Sampling and Analysis,  
23 page 43); Section X (Periodic Review, page 35); the  
24 SOW, as may be modified pursuant to the provisions of  
25 this Consent Decree; and any schedules or Plans  
26 required to be submitted pursuant to this Decree or the  
27 SOW.

28 AN. "Work Completion Report" shall mean the Report

1 submitted by the Work Defendants pursuant to this  
2 Decree, detailing the Work performed pursuant to this  
3 Decree.

4 AO. "Work Defendants" are the Defendants identified in  
5 Exhibit D, that have agreed to undertake the Work and  
6 certain other obligations set forth in this Decree.

7  
8 **VI. GENERAL PROVISIONS**

9 **A. Purpose**

10 The purposes of this Consent Decree are to protect public  
11 health and welfare and the environment from releases or  
12 threatened releases of Waste Material from the Site by the design  
13 and implementation of the remedial action and operations,  
14 monitoring, and maintenance outlined in Section VII (Work to be  
15 Performed, page 17), to resolve the dispute among the Parties as  
16 to whether remedial action may be necessary for the Gas Operable  
17 Unit, to reimburse certain of Plaintiffs' Past Response Costs and  
18 the United States' and the State's Future Oversight Costs, and to  
19 settle any and all claims against Defendants asserted by  
20 Plaintiffs in the complaint filed in this matter.

21 **B. Commitments by Settling Defendants**

22 Work Defendants shall finance and perform the Work in  
23 accordance with this Consent Decree, including, but not limited  
24 to, the SOW and all standards, Plans, specifications, and  
25 schedules set forth in or developed pursuant to this Consent  
26 Decree. Defendants shall also reimburse the United States and  
27 the State for Past Response Costs and Future Oversight Costs as  
28 provided in this Consent Decree.

1       C.   Final Remedy

2       The Parties agree that this Gas Operable Unit does not  
3 constitute the final remedy for this Site. Defendants agree that  
4 the final remedy will be determined by EPA after completion of a  
5 remedial investigation/feasibility study ("RI/FS") and execution  
6 by the EPA of a Record of Decision which determines the final  
7 remedy. The Parties also agree that this Consent Decree does not  
8 address the operations, maintenance and monitoring of the Work  
9 and Excluded Work after EPA approval of the Work Completion  
10 Report.

11       D.   Compliance with Applicable Law

12       All activities undertaken by Defendants pursuant to this  
13 Consent Decree shall be performed in accordance with the  
14 requirements of all applicable Federal, state and local laws and  
15 regulations, including the NCP. All Parties agree and the Court  
16 hereby determines that the remedy selected by the Gas Record of  
17 Decision is consistent with the final remedy and consistent with  
18 the NCP. All Parties agree that the Work, if performed in  
19 accordance with the requirements of this Decree, is consistent  
20 with the NCP. The Work performed in the implementation of this  
21 Gas Operable Unit shall meet the Performance Standards as defined  
22 in this Decree.

23       E.   Conflicts

24       In the event of conflict between any provision in the body  
25 of this Decree and any provision of the Scope of Work or any  
26 attachment to the SOW, the provision in the body of this Decree  
27 shall control. In the event of any inconsistency between the SOW  
28 and the Plans, the SOW shall govern.

1           **VII.       WORK TO BE PERFORMED**

2           **A.   General Obligations Regarding the Work**

3           1.   The Work Defendants shall finance and perform, at  
4 their expense, the implementation of the Work as required by this  
5 Decree and the Exhibits hereto.

6           2.   Defendants shall conduct no activities at the Site  
7 except:

8                   a.   activities specifically authorized under this  
9 Decree;

10                   b.   activities required by and in furtherance of  
11 the Work under this Consent Decree;

12                   c.   activities specifically authorized, in  
13 writing, by EPA; or

14                   d.   activities performed by persons authorized  
15 under the First Decree and the Second Decree to conduct such  
16 activities.

17           3.   Defendants shall not in any way impede the  
18 performance of the Excluded Work or any activities being  
19 performed under the First Decree or the Second Decree. The  
20 Parties recognize that these activities may overlap and will  
21 require integration and coordination among all persons performing  
22 them. The Parties shall use best efforts to minimize conflicts  
23 and to coordinate their activities through the EPA Project  
24 Coordinators, pursuant to Section 3.0 (Integration and  
25 Coordination) of the SOW.

26           4.   Notwithstanding any approvals which may be granted  
27 by the United States or the State or other governmental entities,  
28 the Work Defendants shall not be relieved of any liability

1 arising from or relating to their acts or omissions or the acts  
2 or omissions of any of their contractors, subcontractors, or any  
3 other person acting on their behalf in the performance of the  
4 Work or their failure to perform or complete the Work.

5           5. The Work Defendants shall perform the Work for the  
6 Site as described in: this Decree; the Gas ROD, attached hereto  
7 as Exhibit A; and the Scope of Work attached hereto as Exhibit B  
8 and any modifications thereto pursuant to the terms of this  
9 Decree. The Gas ROD, the SOW, and all modifications to the SOW  
10 are hereby incorporated by reference and made a part of this  
11 Decree, to the extent not inconsistent with this Decree. The  
12 Work shall be performed in accordance with all the provisions of  
13 this Decree, the SOW, any modifications to the SOW, and all  
14 design specifications, Plans or schedules developed pursuant to  
15 this Decree or approved by EPA.

16           6. The Parties acknowledge and agree that neither the  
17 SOW, the Plans nor any approvals, permits or other permissions  
18 which may be granted by EPA related to this Consent Decree con-  
19 stitute a warranty or representation of any kind by the United  
20 States that the SOW or Plans will achieve the Performance  
21 Standards set forth in the Gas ROD and in paragraph VII.C.5  
22 (Performance Standards, page 28) of this Section VII (Work To Be  
23 Performed) and shall not foreclose the United States from seeking  
24 performance of all terms and conditions of this Consent Decree.  
25 Except as provided in Section XXIV (Covenants Not To Sue, page  
26 83), nothing in this Consent Decree shall be construed to relieve  
27 Defendants of their obligation to achieve all Performance  
28 Standards set forth in the Decree.

1           7. While the Work Defendants may collect, treat,  
2 stage, and secure materials on-site, they shall not redeposit  
3 material back into the Site without the explicit approval of EPA.

4           8. The Work Defendants shall dispose of any materials  
5 taken off-site in compliance with the EPA's Revised Procedures  
6 for Implementing Off-Site Response Actions, EPA OSWER Directive  
7 9834.11, November 13, 1987 ("Off-site Policy"), if applicable.

8           9. The Work Defendants shall submit all required  
9 Plans, Reports and items pursuant to the provisions of Exhibit B,  
10 this Section VII (Work To Be Performed), Section XV (Data  
11 Exchange, page 43), Section IX (Additional Work, page 34),  
12 Section XVIII (Escrow Account, page 57), Section X (Periodic  
13 Review, page 35), and other applicable sections of this Decree.

14           10. Any facilities constructed under the terms of this  
15 Consent Decree shall not be used to treat waste or Waste  
16 Materials other than those associated with the OII Site.

17           11. Permits

18           a. As provided in Section 121(e) of CERCLA, 42  
19 U.S.C. § 9621(e), and the NCP, permits shall not be required for  
20 any portion of the Work conducted entirely on site. Where any  
21 portion of the Work requires a Federal, state or local permit or  
22 approval, Work Defendants shall timely submit applications and  
23 shall obtain all such permits or approvals.

24           b. This Consent Decree is not, and shall not be  
25 construed to be, a permit issued pursuant to any Federal or state  
26 statute or regulation.

27           12. EPA will make available to Work Defendants  
28 relevant EPA guidance documents.

1        B.    Work Contractor Selection and Qualifications

2            1.    All Work to be performed by the Work Defendants  
3 pursuant to this Consent Decree shall be under the direction and  
4 supervision of, and performed by, a qualified contractor(s) with  
5 expertise in investigation, analysis and remediation of hazardous  
6 waste problems, with particular expertise in landfill gas  
7 collection and migration control systems and landfill cover  
8 systems, as well as qualifications to design, construct, operate  
9 and maintain a landfill gas collection system, a landfill gas  
10 thermal destruction facility, and landfill cover. All Work  
11 performed by Work Defendants shall be performed by a qualified  
12 contractor(s) or subcontractor(s) in accordance with the con-  
13 ditions and schedules specified in or developed pursuant to this  
14 Decree.

15            2.    No contractor or subcontractor shall perform any  
16 work under this Decree after disapproval of the contractor or  
17 subcontractor by EPA, under the provisions of this paragraph  
18 VII.B; provided, however, that work may continue with EPA  
19 approval to provide for the transition of the work to any  
20 replacement contractor or subcontractor.

21            3.    No later than seven (7) days after the effective  
22 date of this Decree and prior to the initiation of Work at the  
23 Site, the Work Defendants shall notify EPA, in writing, of the  
24 name and qualifications of the selected contractor(s) and the  
25 name and title of the contractor(s)' project manager. The Work  
26 Defendants shall notify EPA, in writing, of the names of any  
27 other contractor(s) and/or subcontractor(s) selected to carry out  
28 the Work pursuant to this Consent Decree, as such contractor(s)



1 and/or subcontractor(s) are retained.

2           4. In the event that EPA disapproves of any selected  
3 contractor or subcontractor, EPA shall notify Work Defendants in  
4 writing of its disapproval and the basis for its decision. If  
5 EPA disapproves of the selection of any contractor or  
6 subcontractor, within 14 days of receipt of EPA's disapproval,  
7 Work Defendants shall notify EPA of the name and qualifications  
8 of the selected replacement contractor. EPA shall provide  
9 written notice if it disapproves the replacement contractor.  
10 Nothing in this paragraph shall limit the Work Defendants' right  
11 to invoke dispute resolution under Section XXII (Dispute  
12 Resolution, page 69).

13           5. If at any time Work Defendants propose to change  
14 their prime contractor or any principal contractor or  
15 subcontractor, Work Defendants shall give written notice to EPA  
16 28 days prior to any change in contractor. The new proposed  
17 contractor or subcontractor shall be subject to the procedures  
18 set forth in the preceding paragraph VII.B.4.

19           C. Work To Be Undertaken

20           The Work shall be conducted pursuant to the SOW attached to  
21 this Decree as Exhibit B. The Work and deliverables required by  
22 this Decree and the SOW shall be conducted pursuant to the  
23 schedules set forth in this Decree and the SOW.

24           1. Description of the Work

25           a. The Work includes all activities, not defined  
26 as Excluded Work, necessary for the implementation of the  
27 predesign, design, construction, operations, maintenance and  
28 monitoring of a Landfill Gas Control System, a Cover System and a

1 Surface Water Management System at the OII Site. The Work  
2 includes the development of management plans as well as  
3 communication, coordination and integration procedures. The  
4 overall objective for the performance of the Work is to construct  
5 and then operate and maintain for three (3) years a functional  
6 facility which meets all Performance Standards.

7           b. At the time that construction activities  
8 begin in a particular geographic area, the Work Defendants shall  
9 be responsible for all operation, maintenance, and monitoring  
10 activities related to the Work, and for those Site Control and  
11 Monitoring (SCM) activities previously being conducted under the  
12 First Decree that correspond to that geographic area. In  
13 addition to the activities to be performed by Work Defendants  
14 under this Decree, Work Defendants shall be responsible for  
15 activities previously being conducted under SCM, including but  
16 not limited to Task S.1 Gas Management, Task S.2  
17 Stormwater/Erosion Control, Task S.3 Landscaping/Irrigation, and  
18 Task S.4 Access Roads, as set forth in the First Decree. These  
19 activities previously being conducted under the First Decree  
20 shall continue until EPA approval of the Work Completion Report  
21 or termination of the First Decree, whichever is later. Nothing  
22 in this paragraph shall be construed to affect the rights and  
23 obligations of the defendants to the First and Second Decrees,  
24 including but not limited to the covenants not to sue, as set  
25 forth under those Decrees.

26           c. In the event that Work activities result in  
27 the alteration, destruction or abandonment of any Site facility  
28 not related to the Work but necessary for Site work, Work

1 Defendants shall either repair or replace, as necessary, such  
2 facility with one that provides the same level of control or  
3 function, as appropriate.

4           2.   Basic Elements of the Work

5               a.   Gas Control System The gas control system  
6 includes the following components: gas collection; liquids  
7 collection; liquids treatment; and gas monitoring. The general  
8 objectives of this system are: to collect and transport landfill  
9 gas through extraction wells, surface collectors, conveyance  
10 lines, and other equipment, to an on-site thermal destruction  
11 facility; and to collect and transport recovered liquids  
12 (excluding surface water runoff) through piping and other  
13 equipment required to convey recovered liquids to the on-site  
14 leachate management system.

15              b.   Cover System The cover system includes the  
16 following components: cover; cover protection; and access and  
17 bench roads. The general objectives of this system are: to  
18 provide a low permeability layer and the materials required to  
19 support and protect the low permeability layer; and to provide  
20 and maintain access for purposes of construction, and operation  
21 and maintenance.

22              c.   Surface Water Management System The surface  
23 water management system includes drainage pipes and channels;  
24 roadway and bench ditches; retention/siltation basins if  
25 required; and other appurtenances. The general objectives of  
26 this system are to manage surface water run-off generated by  
27 storm events, run-on and irrigation operations.  
28

1                   3.   Implementation of the Work

2                   a.    Except as provided in Section VIII (Excluded  
3 Work, page 29), Work Defendants shall be responsible for  
4 furnishing, in accordance with the final gas design package, all  
5 labor, equipment, materials, utilities and support facilities for  
6 the design, construction, operation and maintenance for the Gas  
7 Control, Cover and Surface Water Management Systems, and shall  
8 ensure that all are complete and functional for the term of this  
9 Decree.

10                   b.   Work Defendants shall implement the Work  
11 detailed in this Decree and the Plans as approved or modified by  
12 EPA pursuant to the terms of this Decree. Noncompliance with any  
13 EPA-approved Reports, Plans, specifications, schedules,  
14 appendices, or attachments to the Plans shall be considered a  
15 failure to comply with this Decree and shall subject Work  
16 Defendant(s) to stipulated penalties as provided in Section XXIII  
17 (Stipulated Penalties, page 73).

18                   c.   After EPA approval of the Final Construction  
19 As-Built Report, Work Defendants shall specify a start date for  
20 the beginning of a Compliance Testing Period. A Compliance  
21 Testing Plan which describes compliance testing procedures shall  
22 be included in the Final Operations Plan in accordance with  
23 Section 4.0 (Management Plans) of the SOW. Compliance Testing  
24 shall occur during consecutive 90-day periods. A Compliance  
25 Testing Report will be due no later than six (6) weeks after  
26 completion of each 90-day Compliance Testing Period, and shall  
27 describe the extent to which all Performance Standards have been  
28 attained.

1                   d.    Compliance Testing shall continue until EPA  
2 notifies Work Defendants that two consecutive 90-day periods have  
3 been successfully completed pursuant to Section 5.5 (Compliance  
4 Testing Activities) of the SOW. The Operations and Maintenance  
5 Period shall begin retroactively at the beginning of the first of  
6 the two consecutive successful 90-day periods, and shall continue  
7 for a total of three (3) years. A Construction Completion Report  
8 shall be submitted three (3) weeks after EPA notice that the  
9 Compliance Testing Activities have been successfully completed.

10                   e.   The Parties currently anticipate that the  
11 Compliance Testing Period will not last longer than twelve (12)  
12 months. If EPA determines that failure to attain compliance is  
13 due to inadequate or untimely implementation of the Work, EPA may  
14 assess stipulated penalties as provided in Section XXIII  
15 (Stipulated Penalties, page 73).

16                   f.   If, at any time during the Operations and  
17 Maintenance Activities as described in Section 5.6 of the SOW,  
18 the Work Defendants fail to meet any Performance Standard, the  
19 Work Defendants shall submit a Noncompliance Notification within  
20 five (5) days of receipt of the information indicating the  
21 noncompliance event. This Noncompliance Notification shall  
22 describe the noncompliance event as required by Section 5.6 of  
23 the SOW. A Compliance Action Plan shall be submitted fifteen  
24 (15) days after receipt of the information indicating the  
25 noncompliance event, and shall describe the corrective action(s)  
26 to be undertaken pursuant to Section 5.6.3 of the SOW with a  
27 schedule for those action(s).

28                   g.   In the event that compliance is not attained

1 after implementation of a Compliance Action Plan, EPA may assess  
2 a stipulated penalty as provided in paragraph XXIII.B.2.a (on  
3 page 78) of Section XXIII (Stipulated Penalties). EPA may assess  
4 a stipulated penalty as provided in paragraph XXIII.B.2.c (on  
5 page 78) of Section XXIII (Stipulated Penalties) for untimely or  
6 inadequate or incomplete implementation of a Compliance Action  
7 Plan(s).

8 h. In the event that compliance is not attained  
9 after implementation of a Compliance Action Plan, the Work  
10 Defendants shall submit another Compliance Action Plan describing  
11 the additional activities which will be taken to meet all  
12 Performance Standards.

13 i. All Work shall be performed in accordance  
14 with the National Contingency Plan, EPA guidance, and the  
15 requirements of this Decree, including the standards,  
16 specifications, and schedules established pursuant to this Decree  
17 and its Exhibits.

18 4. Deliverables

19 a. As described more fully in the attached SOW,  
20 all Plans, specifications, schedules, Reports and other pertinent  
21 information shall be submitted to EPA in accordance with this  
22 Decree and Exhibit B, including but not limited to, the  
23 following: (1) the Management Plans; (2) the Predesign Report;  
24 (3) the Design Packages; (4) the Construction As-Built Report;  
25 (5) the Construction Completion Report; (6) Noncompliance  
26 Notification Report, if applicable; and (7) the Work Completion  
27 Report.

28 b. Work Defendants shall provide written

1 Progress Reports to EPA. These Progress Reports shall be  
2 provided monthly; however, one year after EPA approval of the  
3 Construction Completion Report, the Work Defendants may request  
4 that the Progress Reports be submitted quarterly. For purposes  
5 of these Progress Reports, the "reporting period" shall be one  
6 month if the Progress Reports are required monthly, or one  
7 quarter if required quarterly. The reporting period for the  
8 first Progress Report shall be from the effective date of this  
9 Decree to the end of the first full month thereafter. These  
10 Progress Reports shall describe all actions taken to comply with  
11 this Consent Decree during the reporting period, including a  
12 general description of Work and activities commenced or completed  
13 during the reporting period, Work and activities projected to be  
14 commenced or completed during the next reporting period, and any  
15 problems that have been encountered or are anticipated by Work  
16 Defendants in commencing or completing the Work. These Progress  
17 Reports shall be submitted to EPA by the twenty-first (21st) day  
18 of each month if required monthly, or by the twenty-first (21st)  
19 day of January, April, July, and October, if required quarterly.  
20 The Progress Reports submitted in January, April, July and  
21 October shall include a quality assurance Report, which shall  
22 contain information which demonstrates that the Work Defendants  
23 are complying with the requirements of Section XII (Quality  
24 Assurance/Quality Control, page 36) and the QA/QC Plan  
25 established pursuant to this Decree.

26 c. Subject to the provisions of this Decree, if  
27 any deliverable or submitted Progress Report is inadequate or is  
28 disapproved by EPA, or if the Work Defendants fail to submit any

1 deliverable or Progress Report in accordance with the schedule  
2 set forth in or developed pursuant to this Decree, then the Work  
3 Defendants shall be considered to be in violation of this Decree  
4 and subject to stipulated penalties as governed by Section XXIII  
5 (Stipulated Penalties, page 73).

6           5.   Performance Standards

7           Work Defendants shall meet all Performance Standards  
8 with respect to the Work at the Site. These standards shall  
9 include those clean-up standards, standards of control, and other  
10 substantive criteria, requirements or limitations as set forth in  
11 this Decree.

12           6.   EPA Review

13           a.   If EPA disapproves any Work being performed  
14 by Work Defendants, the Work Defendants shall have ten (10) days  
15 from receipt of such disapproval, or a longer period if deemed  
16 appropriate by EPA, to correct the Work.

17           b.   If EPA disapproves any plans, reports or  
18 other items required to be submitted to EPA for approval pursuant  
19 to this Section VII (Work to be Performed), Section XII (Quality  
20 Assurance/Quality Control, page 36), or Section XVIII (Escrow  
21 Account, page 57), the Work Defendants shall have ten (10) days  
22 from receipt of such disapproval, or such longer period as may be  
23 allowed by EPA, to correct any inadequacies and resubmit the  
24 plan, report or item for EPA approval.

25           c.   Any disapprovals by EPA shall include an  
26 explanation of why the Work, plan, report or item is being  
27 disapproved.

28           d.   The Work Defendants must address each of



1 EPA's comments and resubmit to EPA the previously disapproved  
2 plan, report or item with any required changes within the  
3 deadline set forth herein.

4 e. If any Work, or any plan, report, or item is  
5 inadequate or untimely after resubmission, then the Work  
6 Defendants shall be deemed to be in violation of this Decree and  
7 subject to stipulated penalties as governed by Section XXIII  
8 (Stipulated Penalties, page 73).

9 7. Failure to Perform

10 In the event EPA or its designee performs all or portions of  
11 the Work pursuant to paragraph XXVI.D (on page 94) of Section  
12 XXVI (Reservation of Rights), the Work Defendants shall reimburse  
13 the EPA for the costs of doing such work, pursuant to the  
14 provisions of paragraphs XVII.E.1 and XVII.E.3 (page 56) of  
15 Section XVII (Reimbursement of Response Costs), plus all  
16 penalties set forth in Section XXIII (Stipulated Penalties, page  
17 73).

18  
19 VIII. EXCLUDED WORK

20 A. Definition of Excluded Work

21 For the purposes of this Decree and its Exhibits, Excluded  
22 Work shall be defined, both individually and collectively, as the  
23 following three (3) items.

24 1. Cover Protection Component of the Cover System for  
25 the North Slope of the South Parcel (NSSP):

26 a. The NSSP is defined as the approximately 44  
27 acre area on the South Parcel with boundaries defined pursuant to  
28 this Decree and Figure B-1 (Plan Location of the Work) of the

1 SOW. The Cover System for the NSSP is expected to be composed of  
2 a combination of impermeable and protective layers which will lie  
3 directly above the Gas Collection Component of the Gas Control  
4 System.

5 b. This item of the Excluded Work is the  
6 procurement and construction of the Cover Protection Component of  
7 the Cover System for the NSSP.

8 c. The person(s) performing this item of  
9 Excluded Work shall use the final design plans and specifications  
10 developed by the Work Defendants pursuant to Section VII (Work to  
11 Be Performed, page 17) and the SOW when procuring and  
12 constructing the Cover Protection Component, unless EPA or the  
13 Court determines otherwise.

14 d. Tasks and activities not included in this  
15 item of Excluded Work are: the predesign, design, compliance  
16 testing and operations and maintenance of all NSSP Systems, and  
17 the construction of all of the NSSP Systems except for the Cover  
18 Protection Component, which shall be undertaken by the Work  
19 Defendants pursuant to Section VII (Work to be Performed, page  
20 17). Work Defendants shall pay the United States' and the  
21 State's costs incurred in oversight of this item, pursuant to  
22 Section XVII (Reimbursement of Response Costs, page 51).

23 2. Thermal Destruction Facility

24 a. The Thermal Destruction Facility (TDF) will  
25 treat the contaminants in the landfill gas stream through thermal  
26 destruction or energy recovery technology.

27 b. This item of the Excluded Work is: the  
28 predesign, design, and construction of the TDF; and operation,

1 maintenance and monitoring of the TDF until EPA's approval of the  
2 Work Completion Report.

3 c. Tasks and activities not included in this  
4 item of Excluded Work include activities described in Section  
5 5.2.3 (Landfill Gas Characterization) of the SOW and construction  
6 of headers and conveyance lines for delivery of landfill gas to  
7 the TDF, which shall be undertaken by the Work Defendants  
8 pursuant to Section VII (Work to be Performed, page 17). Work  
9 Defendants shall provide to the person(s) performing this  
10 Excluded Work information, both ranges and averages, regarding  
11 gas quality, gas composition, gas quantity estimates and vacuum  
12 requirements.

13 d. In the event Work Defendants perform this  
14 item of Excluded Work and utilize an energy recovery system, any  
15 funds generated by such energy recovery system shall be placed in  
16 the Cash Escrow Account.

17 3. North Parcel

18 a. The North Parcel is defined as the 45-acre  
19 portion of the site which lies to the north of Highway 60 (Pomona  
20 Freeway).

21 b. This item of Excluded Work is: the  
22 predesign, design, construction, compliance testing, and  
23 operation, maintenance and monitoring of the North Parcel Gas  
24 Control, Cover, and Surface Water Management Systems until EPA  
25 approval of the Work Completion Report. North Parcel systems  
26 also include conveyance of landfill gas collected from the North  
27 Parcel to the TDF and liquids recovered from the North Parcel to  
28 the Leachate Management System.

1        B.    In the event that any or all item(s) of Excluded Work  
2 are performed entirely by person(s) other than Work Defendants,  
3 Work Defendants shall not be responsible for attaining  
4 performance standards for that item(s) of Excluded Work. Nothing  
5 in this paragraph shall be deemed to modify or change Work  
6 Defendants' obligations under the SOW or this Decree, including  
7 the obligation to attain Performance Standards or to comply with  
8 integration and coordination requirements in Section 3.0 of the  
9 SOW.

10       C.    In the event Excluded Work is not performed by any  
11 other person, Work Defendants shall perform any or all item(s) of  
12 Excluded Work or any portion thereof, upon written request by  
13 EPA. EPA shall not request Work Defendants to perform any or all  
14 item(s) of Excluded Work or any portion thereof unless EPA  
15 determines that sufficient funds are available in the Cash Escrow  
16 Account to provide payment to Work Defendants for that item or  
17 portion of Excluded Work pursuant to paragraph VIII.E below.  
18 Work Defendants shall submit an Excluded Work Completion Report  
19 pursuant to Sections 5.8 and 7.9 of the SOW for each item or  
20 portion of Excluded Work performed by them.

21       D.    Except as provided in paragraph XXIII.C.6 (on page 83)  
22 of Section XXIII (Stipulated Penalties) and Section XLII  
23 (Termination and Satisfaction, page 107), if Work Defendants  
24 perform an item(s) or portion of Excluded Work, all references in  
25 this Decree to Work shall be read to apply to that item(s) or  
26 portion of Excluded Work, and Work Defendants shall be  
27 responsible for attaining Performance Standards pertaining to  
28 that item(s) or portion of Excluded Work.

1       E.    In the event Work Defendants perform any or all item(s)  
2 of Excluded Work or any portion thereof, Work Defendants shall be  
3 entitled to payment from the Cash Escrow Account for up to the  
4 first \$6 million of work costs incurred by Work Defendants for  
5 each such item of Excluded Work. The value toward completion of  
6 any work which EPA determines has been satisfactorily performed,  
7 or funds provided by any person not a signatory to this Decree  
8 for each item of Excluded Work shall correspondingly reduce the  
9 payment owing from the Cash Escrow Account to Work Defendants for  
10 that item of Excluded Work. The Escrow Agreement shall require  
11 that the Work Defendants provide a statement at the time they  
12 seek reimbursement showing an accurate accounting of work costs  
13 for Excluded Work. The following costs or expenditures of Work  
14 Defendants specifically shall not be included as work costs for  
15 Excluded Work:

16               1. Any fines or penalties assessed for noncompliance  
17 with (a) the provisions of this Decree, (b) plans, schedules or  
18 specifications relating to the Excluded Work, or (c) federal or  
19 State laws;

20               2. Work Defendants' internal corporate costs, or OII  
21 Steering Committee administrative and legal fees (as  
22 distinguishable from Work Defendants' oversight, project  
23 management, and legal costs, which are included to the extent  
24 they arise from performance of that item of Excluded Work);

25               3. Costs associated with the judicial resolution of  
26 any disputes under Section XXII (Dispute Resolution, page 69),  
27 unless Work Defendants prevail in the judicial resolution of the  
28 dispute;

1           4. Any costs arising out of claims or the defense of  
2 claims for personal injury, property damage, or other third party  
3 claims;

4           5. The costs incurred by EPA resulting from any EPA  
5 determination under paragraph XXIII.C (on page 81) of Section  
6 XXIII (Stipulated Penalties);

7           6. Any costs which Work Defendants would have been  
8 obligated to incur or pay under the provisions of this Consent  
9 Decree even had they not performed Excluded Work.

10          F. Nothing contained in the preceding paragraph VIII.E  
11 shall preclude Work Defendants from asserting that such costs and  
12 expenditures, excluding fines or penalties, are response costs  
13 under CERCLA and the NCP.

14  
15           **IX.       ADDITIONAL WORK**

16          A. In the event that EPA or the Work Defendants determine,  
17 before EPA's approval of Work Defendants' Work Completion Report,  
18 that additional response work is necessary to carry out the  
19 activities required by this Decree or to meet the Performance  
20 Standards, notification of such additional work will be provided  
21 to the Project Coordinator for the other party.

22          B. Unless another time period is agreed to by EPA and the  
23 Work Defendants, within 30 days of receipt of such notice by EPA  
24 or by Work Defendants that additional work is necessary pursuant  
25 to this Section, the Work Defendants shall submit a revised or  
26 amended Work Plan or Technical Memorandum, as appropriate, to EPA  
27 for such additional work. The revised or amended Plan shall  
28 conform to the requirements in Section VII (Work To Be Performed,

1 page 17). Work Defendants shall implement the revised or amended  
2 Plan as approved or modified by EPA in accordance with the  
3 schedule developed pursuant to this Decree. This paragraph shall  
4 not apply to emergency response actions as determined by EPA.

5 C. Any additional work determined to be necessary by Work  
6 Defendants is subject to approval by EPA.

7 D. Any additional work determined to be necessary by Work  
8 Defendants and approved by EPA, or determined to be necessary by  
9 EPA to carry out the Work or to meet the Performance Standards,  
10 shall be completed by Work Defendants in accordance with the  
11 standards, specifications, and schedules approved by EPA.

12  
13 X. PERIODIC REVIEW TO ASSURE PROTECTION OF HUMAN  
14 HEALTH AND THE ENVIRONMENT

15 A. In light of the fact that hazardous substances,  
16 pollutants or contaminants will remain at the OII Site, Work  
17 Defendants shall conduct the requisite studies and investigations  
18 as determined necessary by EPA in order to permit EPA to conduct  
19 five year reviews as required by Section 121 of CERCLA, 42 U.S.C.  
20 § 9621, any applicable regulations, and EPA guidance, Structure  
21 and Components of Five-year Reviews, dated May 23, 1991.

22 B. If EPA determines that information received, in whole  
23 or in part, during its review, indicates that the remedy is not  
24 protective of human health and the environment, EPA either may  
25 take administrative or judicial action or may perform any  
26 additional activities EPA has determined to be necessary. Except  
27 as provided in paragraph IX.A of Section IX (Additional Work,  
28 page 34), such activities identified in this paragraph X.B shall

1 not be considered to be Work or Excluded Work.

2  
3 **XI. SAFETY, HEALTH AND EMERGENCY RESPONSE PLAN**

4 A. The Worker Health and Safety Plan that the Work  
5 Defendants shall submit pursuant to Section VII (Work to be  
6 Performed, page 17) and Exhibit B of this Consent Decree shall be  
7 prepared in conformance with applicable Occupational Safety and  
8 Health Administration and EPA requirements, including but not  
9 limited to OSHA regulations at 29 C.F.R. § 1910.120.

10 B. The Emergency Response Plan that the Work Defendants  
11 shall submit pursuant to Section VII (Work to be Performed, page  
12 17) and Exhibit B of this Decree shall set forth health, safety  
13 and emergency response procedures for the activities to be  
14 conducted by Work Defendants. At a minimum, the Emergency  
15 Response Plan shall address both workers at the Site and public  
16 exposure to releases or spills at and from the Site.

17 C. The Parties shall use best efforts to coordinate on-  
18 site activity plans.

19  
20 **XII. QUALITY ASSURANCE/QUALITY CONTROL**

21 A. The Quality Assurance/Quality Control (QA/QC) Plan that  
22 the Work Defendants shall submit pursuant to Section VII (Work to  
23 be Performed, page 17) of this Consent Decree and Exhibit B  
24 shall, where applicable, be prepared in accordance with EPA  
25 guidance, Interim Guidelines and Specifications for Preparing  
26 Quality Assurance Project Plans, QAMS-005/80, and relevant EPA  
27 guidance. The QA/QC Plan shall include procedures necessary for  
28 the implementation of the Work and shall address Construction



1 Quality Assurance procedures in accordance with EPA guidance,  
2 Construction Quality Assurance for Hazardous Waste Land Disposal  
3 Facilities, EPA/530-SW-86-031. The QA/QC Plan shall include a  
4 description of the procedures used to verify that the processes  
5 are operating within acceptable limits. Upon approval by EPA to  
6 the Work Defendants, the Work Defendants shall implement the  
7 Plan.

8 B. The Work Defendants shall use QA/QC procedures in  
9 accordance with the QA/QC Plans submitted pursuant to this  
10 Decree, and shall utilize standard EPA chain of custody  
11 procedures, as documented in the National Enforcement  
12 Investigations Center Policies and Procedures Manual as revised  
13 in May 1986, and the National Enforcement Investigations Center  
14 Manual for the Evidence Audit, published in September 1981, for  
15 all sample collection and analysis activities, unless other  
16 procedures are approved by EPA. In order to provide quality  
17 assurance and maintain quality control regarding all samples  
18 collected pursuant to this Decree, the Work Defendants shall, at  
19 a minimum, ensure that the following QA/QC measures are employed  
20 at laboratories utilized for analysis:

21 1. Work Defendants shall assure that all laboratories  
22 utilized by the Work Defendants for analysis of samples taken  
23 pursuant to this Consent Decree shall provide for access of EPA  
24 personnel and EPA authorized representatives to assure the  
25 accuracy of laboratory results related to the OII Site.

26 2. Any laboratory utilized by the Work Defendants for  
27 analysis of samples taken pursuant to this Consent Decree shall  
28 perform all analyses according to EPA methods or methods deemed

1 satisfactory to EPA and submit all protocols to be used for  
2 analysis to EPA in the Plans and documents required under this  
3 Consent Decree.

4           3. All laboratories utilized by the Work Defendants  
5 for analysis of samples taken pursuant to this Decree shall  
6 participate in an EPA or EPA equivalent QA/QC program. As part  
7 of the QA/QC program and upon request by EPA, such laboratories  
8 shall perform, at no expense to Plaintiffs, analyses of samples  
9 provided by EPA to demonstrate the quality of each laboratory's  
10 data.

11  
12           **XIII. PROJECT COORDINATORS**

13           A. By the effective date of this Consent Decree, EPA, the  
14 State and the Work Defendants shall each designate a Project  
15 Coordinator to monitor the progress of the Work, to assure  
16 integration and coordination of the Work and Excluded Work, to  
17 facilitate communication among the Parties, and to oversee the  
18 implementation of this Consent Decree. EPA may also designate an  
19 Alternate Project Coordinator. EPA, the State and the Work  
20 Defendants each have the right to change their respective Project  
21 Coordinator. Such a change shall be accomplished by notifying  
22 the other Parties in writing at least seven (7) calendar days  
23 prior to the change. To the maximum extent possible,  
24 communications between the Work Defendants, EPA and the State and  
25 all documents, including Reports, approvals, and other  
26 correspondence concerning the activities performed pursuant to  
27 the terms and conditions of this Consent Decree, shall be  
28 directed through the Project Coordinators. The role of the State

1 Project Coordinator shall be consistent with the provisions of  
2 paragraphs XXXV.A and XXXV.D of Section XXXV (State and Local  
3 Agency Participation, page 103), and EPA shall be the lead agency  
4 (as defined in the NCP).

5 B. The EPA Project Coordinator shall have the authority  
6 vested in the On-Scene Coordinator by 40 C.F.R. Part 300 as well  
7 as the authority to ensure that the Work is performed in  
8 accordance with all applicable statutes, regulations, and this  
9 Consent Decree. If the EPA On-Scene-Coordinator and the EPA  
10 Project Coordinator are two different individuals, EPA will make  
11 its best efforts to coordinate any direction given to the Work  
12 Defendants by the On-Scene-Coordinator and the EPA Project  
13 Coordinator.

14 C. The EPA Project Coordinator or On-Scene-Coordinator  
15 shall also have the authority to require a cessation of the  
16 performance of the Work or any other activity at the Site that  
17 s/he determines may present or contribute to an endangerment to  
18 public health, welfare, or the environment or cause or threaten  
19 to cause the release of Waste Materials from the Site. The ab-  
20 sence of the EPA Project Coordinator from the Site shall not be  
21 cause for stoppage of work.

22 D. In the event the EPA Project Coordinator or On-Scene-  
23 Coordinator takes any action which results in the delay of the  
24 Work or any other activity required by this Decree, the Parties  
25 may, if necessary, extend the compliance schedule of this Decree  
26 for only that amount of time which EPA determines is necessitated  
27 by the event. Should the Work Defendants desire to extend the  
28 compliance schedule pursuant to this Section, the Work Defendants

1 shall propose an extension and the EPA shall determine the length  
2 of any extension. If the EPA Project Coordinator takes any  
3 action which results in the delay of the Work or any other  
4 activity required by this Decree for any of the reasons set forth  
5 in the preceding paragraph XIII.C and those reasons are due to  
6 the acts or omissions of the Work Defendants or the  
7 Contractor(s), then any extension of the compliance schedule  
8 shall be at EPA's discretion.

9 E. The Work Defendants' Project Coordinator shall be  
10 responsible for directing the daily activities of the Work  
11 Defendants and Work Defendants' contractors in the performance of  
12 the Work. With advance notice to EPA, the Work Defendants'  
13 Project Coordinator may assign other representatives, including  
14 other contractors, to serve as a site representative for  
15 oversight of performance of daily operations during remedial  
16 activities.

17 F. The Work Defendants' Project Coordinator and the EPA  
18 Project Coordinator shall also coordinate with the Project  
19 Coordinators for the Work Defendants and for the EPA under the  
20 First Decree and any Excluded Work Project Coordinator(s), and  
21 shall include those Project Coordinators in all notices and  
22 communications required by this Decree.

23 G. Prior to invoking formal Dispute Resolution procedures,  
24 any unresolved disputes arising between the EPA site representa-  
25 tive and the Work Defendants or their contractors shall be  
26 referred to the EPA and Work Defendants' Project Coordinators.

1           **XIV.       ACCESS**

2           A.    To the extent that the Site or any other area where  
3 Work is to be performed is owned or controlled by persons other  
4 than those bound by this Consent Decree or to the extent that ac-  
5 cess to or easements over property is required for the proper and  
6 complete performance of this Decree, the Work Defendants shall  
7 use their best efforts to obtain access agreements from the  
8 present owners or those persons who have control over the  
9 property, including lessees, no later than sixty (60) days in  
10 advance of the need for such access. Access agreements shall  
11 provide access to the Work Defendants, the Contractor(s), the  
12 United States on behalf of EPA and USACE, and the State and local  
13 agencies, and their authorized representatives. In the event  
14 that access agreements are not obtained within the sixty (60) day  
15 period, the Work Defendants shall notify EPA within five working  
16 days thereafter regarding both the lack of, and efforts to  
17 obtain, such agreements. If Work Defendants fail to gain access  
18 within 60 days, they shall continue to use best efforts to obtain  
19 access. For purposes of this paragraph, "best efforts" includes  
20 but is not limited to the payment of reasonable sums of money as  
21 consideration for access.

22           B.    The United States may, as it deems appropriate, assist  
23 Work Defendants in obtaining access. Work Defendants shall  
24 reimburse the United States in accordance with the procedures in  
25 Section XVII (Reimbursement of Response Costs, page 51), for all  
26 costs incurred by the United States, including, but not limited  
27 to, attorneys fees and the amount of just compensation in  
28 obtaining access.

1 C. If the Plaintiffs and the Work Defendants, through  
2 continued joint or individual efforts, are unable to obtain  
3 access pursuant to paragraph XIV.A of this Section, or suitable  
4 alternative access, a force majeure event shall be deemed to have  
5 occurred, and the affected work shall be modified, if necessary,  
6 by mutual agreement of the Work Defendants and Plaintiffs, to  
7 take into account the lack of such access.

8 D. 1. The EPA, the USACE, and their representatives,  
9 including contractors, reserve all rights under Section 104 of  
10 CERCLA and, during the effective period of this Decree, shall  
11 have access at all times to the Site and during reasonable times  
12 with reasonable notice, to any contiguous property owned or  
13 controlled by any Defendant, for activities, including but not  
14 limited to:

15 a. Monitoring the progress of activities taking  
16 place;

17 b. Verifying any data or information submitted  
18 to EPA;

19 c. Conducting investigations relating to  
20 contamination at and near the Site;

21 d. Obtaining samples at the Site.

22 2. As to activities relating to the Site, the EPA,  
23 the USACE, the State, and their representatives shall also have  
24 access for the purposes of inspecting and copying records,  
25 operating logs, contracts, or other documents as specified in  
26 Section XV (Data Exchange: Sampling and Analysis, page 43).

27 E. To the extent that EPA has control over access to  
28 portions of the OII Site, and in light of the fact that EPA

1 intends to continue to provide Site security and to control  
2 access to portions of the Site, EPA agrees to provide reasonable  
3 access to those necessary personnel of Work Defendants required  
4 to carry out the field work detailed in this Consent Decree.  
5 Within seven (7) days of the effective date of this Consent  
6 Decree, Work Defendants shall provide the EPA Project Coordinator  
7 with a list of necessary personnel and their company  
8 affiliations, to be added to the list of persons who shall be  
9 provided access to the Site. This list can be amended as  
10 necessary.

11 F. Any person obtaining access to the Site pursuant to  
12 this provision shall comply with all applicable provisions of the  
13 Safety, Health and Emergency Response Plan as submitted pursuant  
14 to Section XI (Safety, Health and Emergency Response Plan, page  
15 36), and Exhibit B of this Consent Decree.

16  
17 **XV. DATA EXCHANGE: SAMPLING AND ANALYSIS**

18 A. Defendants shall provide EPA with all technical data  
19 and/or information generated by the Defendants with respect to  
20 the implementation of this Consent Decree, and shall provide  
21 technical data and/or information relating to environmental  
22 conditions, public health issues, Site conditions, Site use and  
23 history, contaminant incidence and migration, and regional  
24 environmental conditions relating to the performance of the Work  
25 and the Excluded Work or which would be covered by the provisions  
26 of Section 104 of CERCLA, as such data and information become  
27 available. Summaries and tabulations of laboratory data may be  
28 reviewed for clerical and gross laboratory handling errors prior

1 to submission pursuant to this paragraph. The data and  
2 information to be provided to EPA under this paragraph include,  
3 but are not limited to:

4 1. Communications between Defendants and local, state  
5 or other Federal authorities;

6 2. Permits from local, state or Federal authorities;

7 3. Raw analytical, monitoring, sampling, geographi-  
8 cal, hydrogeological, geologic, meteorological, surface water,  
9 seismic, landfill gas, subsurface gas, or ambient air data,  
10 resulting from any environmental testing relating to the OII  
11 Site, including documentation of all related Quality Assurance-  
12 /Quality Control (QA/QC) results;

13 4. Technical working drafts and final reports, letter  
14 reports, work plans, documents, records, files, memoranda, status  
15 reports, chain of custody records, manifests, trucking logs,  
16 receipts, sample traffic routing, correspondence, or other  
17 documents or information related to the Work, and written  
18 material developed using data generated by the Work Defendants as  
19 part of the implementation of this Decree or generated by  
20 Plaintiffs relating to the OII Site;

21 5. Technical maps, computer generated graphics,  
22 charts, tables, data sheets, geologic cross-sections, lithologic  
23 logs, graphs, photographs, slides, or other such graphic material  
24 relating to the OII Site; and

25 6. Computerized technical data and information,  
26 including any creation, display and organization of a data base.

27 B. Subject to paragraph XV.H of this Section, Work  
28 Defendants shall make available any relevant data and/or



1 information covered by paragraph XV.A to any person(s) performing  
2 Excluded Work. The costs of copying such data and/or information  
3 shall be borne by the person(s) performing Excluded Work who  
4 makes such request.

5 C. Plaintiffs agree to provide Work Defendants with  
6 technical data and information relating to environmental and  
7 public health issues, Site conditions, Site use and history, and  
8 regional environmental conditions relating to the OII Site as  
9 such data become available, including but not limited to the  
10 information set forth in subparagraphs XV.A.3, XV.A.4, XV.A.5,  
11 and XV.A.6 of this Section.

12 D. Under the provisions of Section 104(e) of CERCLA, EPA  
13 and the State explicitly reserve the right to observe the Work of  
14 the Work Defendants as it is performed. In addition, at the  
15 request of EPA, the Work Defendants shall allow split or  
16 replicate samples to be taken by EPA or the State and/or their  
17 authorized representatives, of any samples collected by the Work  
18 Defendants or anyone acting on the Work Defendants' behalf  
19 pursuant to the implementation of this Consent Decree. To the  
20 extent practicable, any such observation and sample collection  
21 shall be coordinated through the EPA Project Coordinator. At the  
22 request of Work Defendants, Plaintiffs and/or their authorized  
23 representatives shall allow Work Defendants to split or replicate  
24 any samples collected by Plaintiffs and/or their authorized  
25 representatives.

26 E. The Parties performing sampling for the purposes of  
27 this Decree shall notify the other Parties, except Cash  
28 Defendants, as soon as possible but no less than seven (7) days

1 in advance of any sample collection activity, and the Party  
2 desiring to take split or replicate samples shall inform the  
3 other at least three (3) days prior to the scheduled sampling  
4 event. The Party performing the sampling activity shall inform  
5 the other Parties, except Cash Defendants, at least twenty-four  
6 (24) hours in advance if the planned sampling schedule cannot be  
7 met, or of changes to any sample collection activity.

8 Notwithstanding the foregoing, within seven (7) days after the  
9 approval of any sampling plan (including the schedule for  
10 implementation), Work Defendants shall notify EPA of the intended  
11 date of commencement of the sampling activity. Work Defendants  
12 shall notify EPA 30 days prior to the disposal of any such  
13 samples, and shall provide EPA with an opportunity to take  
14 possession of all or a portion of such samples.

15 F. Work Defendants need not provide EPA with seven (7)  
16 days' notice of routine sampling performed pursuant to the SOW;  
17 however, Work Defendants shall provide EPA with a schedule for  
18 all routine sampling. Work Defendants shall notify EPA seven (7)  
19 days in advance of any changes in the routine sampling schedule.  
20 Work Defendants need not provide EPA with advance notice of  
21 changes in routine sampling as a result of unexpected conditions.  
22 Work Defendants shall, however, notify EPA within forty-eight  
23 (48) hours of such occurrence and shall provide EPA with the  
24 results of analysis of such sampling when the results become  
25 available.

26 G. The Parties shall notify each other in a timely manner  
27 of any project which is likely to produce data or information of  
28 the types described in this Section.

1 H. Defendants recognize that the data and reports  
2 generated under this Consent Decree are not subject to the  
3 protection of Section 1905 of Title 18 and 40 C.F.R. Part 2 as  
4 confidential information. Moreover, the Parties explicitly  
5 recognize that the provisions of Section 104(e)(7)(F) of CERCLA  
6 apply to data and information generated by the Defendants. The  
7 Work Defendants shall not assert a claim of confidentiality  
8 regarding any hydrogeological or chemical data, or any data  
9 relating to the Work. Defendants reserve their rights to assert  
10 a confidentiality claim for all other information pursuant to  
11 Section 1905, Title 18 and 40 C.F.R. Part 2, and any applicable  
12 state laws and regulations. The provisions of this Section shall  
13 not constitute a waiver of any applicable claims of attorney work  
14 product or attorney-client privilege. The United States, EPA and  
15 the State reserve their rights with regard to information  
16 otherwise not subject to disclosure under applicable law. The  
17 State is not obligated to provide any materials pursuant to this  
18 Section which are subject to applicable attorney work product  
19 claims, attorney-client privilege, or which the State is not  
20 required to disclose under California Government Code Section  
21 6254, except that Section 6254(b) shall not apply to the extent  
22 that the State has made requested materials available to parties  
23 to any pending litigation.

24 I. All data, factual information, and documents submitted  
25 by the Defendants to EPA and the State pursuant to this Consent  
26 Decree, and determined by EPA or the State, as appropriate, not  
27 to be confidential, shall be subject to public inspection.

28 J. Work Defendants shall develop and implement a data

1 Management Information System (MIS) pursuant to this Decree and  
2 Exhibit B.

3 K. If any of the Cash Defendants wish to perform any  
4 sampling activity on or contiguous to the Site, they shall first  
5 provide notice to the Project Coordinators and obtain permission  
6 from EPA and the contiguous property owner if such owner is a  
7 Defendant. In such an event, the provisions of this Section  
8 shall apply to that Cash Defendant.

9 L. Subject to paragraph XV.H above, any Cash Defendant  
10 shall, at its request in writing, have access to all data,  
11 factual information and documentation generated under this Decree  
12 or described in Section VII (Work To Be Performed, page 17) and  
13 the Scope of Work. The cost of copying shall be borne by the  
14 Cash Defendant. Any such data, factual information or documents  
15 obtained by any Cash Defendant shall be subject to the provisions  
16 of this Section.

17  
18 **XVI. RETENTION OF RECORDS**

19 A. Each Defendant shall preserve and retain all records  
20 and documents now in its possession or control or which come into  
21 the possession or control of Defendants or their divisions,  
22 subsidiaries, or parent corporations and their employees, agents,  
23 accountants, contractors or attorneys that relate to the  
24 performance of the Work or the Excluded Work or that fall within  
25 the scope of Section 104(e) of CERCLA, 42 U.S.C. § 9604(e),  
26 regardless of any corporate document retention policy to the  
27 contrary, during the pendency of this Decree and for ten (10)  
28 years after termination of this Decree.

1        B.    Each Defendant shall preserve and shall instruct all  
2 contractors, subcontractors and anyone else acting on Defendants'  
3 behalf at the OII Site to preserve (in the form of originals or  
4 exact copies, or in the alternative, microfiche or similar  
5 technology of all originals) all documents, records, and  
6 information specified above, during the pendency of this Decree  
7 and for ten (10) years after the termination of this Decree. At  
8 the conclusion of this document retention period, Defendant(s)  
9 shall notify the United States, EPA, and the State at least  
10 ninety (90) days prior to the destruction of any such records or  
11 documents, and, upon request by the United States, EPA, or the  
12 State made within forty-five (45) days of such notice, the  
13 Defendant(s) proposing such destruction shall deliver or make  
14 available any such records or documents to EPA or the State, as  
15 appropriate. Defendants are not obligated to provide any  
16 materials pursuant to this Section which are subject to  
17 applicable attorney work product claims or attorney-client  
18 privilege, or both. In addition, the United States reserves all  
19 its rights with regard to information otherwise not subject to  
20 disclosure under applicable law.

21        C.    EPA shall preserve and retain all records and documents  
22 now in its possession or control or in the possession or control  
23 of its divisions, employees, agents, accountants, contractors or  
24 attorneys which relate to any field activities at the Site  
25 performed by EPA, which are received under the provisions of  
26 Section 104 of CERCLA, or which relate to the performance of the  
27 Work or the Excluded Work under this Decree, as required by the  
28 EPA Office of Information Resources Management Document Number

1 2160, entitled Records Management Manual and the corresponding  
2 EPA Records Management Manual, Appendix B, Records Control  
3 Schedule.

4 D. The State shall preserve and retain all records and  
5 documents now in its possession or control or in the possession  
6 or control of its divisions, employees, agents, accountants,  
7 contractors or attorneys which relate to the performance of the  
8 Work or the Excluded Work under this Decree or which relate to  
9 activities performed or investigations, or enforcement actions  
10 taken by the State at the OII Site regardless of any documents  
11 retention policy to the contrary, during the pendency of this  
12 Decree and for ten (10) years after its termination. After such  
13 ten (10) year period, the State shall notify the Work Defendants  
14 at least ninety (90) calendar days prior to the destruction of  
15 any such documents. Upon request by any Defendant made within  
16 forty-five (45) days of such notice, the State shall deliver or  
17 make available to the requesting Defendant originals or copies of  
18 any such records prior to their destruction. The State is not  
19 obligated to provide any materials pursuant to this Section which  
20 are subject to applicable attorney work product claims, attorney-  
21 client privilege, or which the State is not required to disclose  
22 under California Government Code Section 6254, except that  
23 Section 6254(b) shall not apply to the extent that the State has  
24 made requested materials available to parties to any pending  
25 litigation.

26 E. Each Defendant hereby affirms, individually, that  
27 Defendant has not willfully, recklessly or with gross negligence  
28 altered, mutilated, discarded, destroyed or otherwise disposed of

1 any records, documents, or other information relating to any  
2 party's potential liability with regard to the Site since the  
3 notification of that Defendant's potential liability by the  
4 United States or the State, or the date of lodging of this  
5 Decree, whichever is earliest.

6 F. The failure of any Defendant(s) to preserve and retain  
7 all records and documents as required by this Section shall  
8 subject each such Defendant to the stipulated penalties set forth  
9 in Section XXIII (Stipulated Penalties, page 73).

10 G. This Section shall not apply to exact duplicates.  
11

12 **XVII. REIMBURSEMENT OF RESPONSE COSTS**

13 **A. United States' Past Response Costs**

14 1. Defendants agree to reimburse the Hazardous  
15 Substance Superfund for certain response costs that have been  
16 incurred by the United States in responding to the conditions at  
17 the OII Site.

18 2. EPA will provide Defendants with a copy of the EPA  
19 Cost Documentation Management System (CDMS) documentation that  
20 provides an accounting of its costs for the period from June 1,  
21 1988 up to and including December 31, 1990, and includes an  
22 accounting of its indirect and interest cost calculations for  
23 this period.

24 3. The Department of Justice will provide Defendants  
25 with a copy of the appropriate Department of Justice  
26 documentation that provides for an accounting of its costs for  
27 the period from June 1, 1988 up to and including December 31,  
28 1990.

1           4. Each Cash Defendant listed in Exhibit C shall make  
2 payments in the amounts and in the manner set forth in Exhibit C  
3 to this Decree. Unless otherwise specified in Exhibit C,  
4 payment shall be due within thirty (30) days of notice of entry  
5 of this Decree.

6           5. Within thirty (30) days of notice of entry of this  
7 Decree, Work Defendants shall pay into the EPA Hazardous  
8 Substance Superfund sufficient funds to guarantee reimbursement  
9 of the United States' Past Response Costs up to \$18 million,  
10 subject to the provisions of paragraph XVII.A.6, below.

11           6. The Parties agree that the first \$8 million  
12 received pursuant to paragraph XVII.A.4, above, from Cash  
13 Defendants who were also signatories to the First Decree or the  
14 Second Decree shall be applied to offset Work Defendants' \$18  
15 million guarantee for payment of the United States' Past Response  
16 Costs. In the event the recovery from those Cash Defendants  
17 exceeds \$8 million, fifty percent (50%) of such funds in excess  
18 of \$8 million will be applied to offset the Work Defendants'  
19 guarantee for payment of the United States' Past Response Costs;  
20 the other fifty percent (50%) of such excess shall not be applied  
21 to that guarantee. Neither payments from other person(s) who  
22 were not signatories to the First Decree or the Second Decree,  
23 nor any other funds placed into the Cash Escrow Account shall be  
24 applied to offset the Work Defendants' guarantee of the United  
25 States' Past Response Costs.

26           7. Payment of the costs set forth in the  
27 documentation submitted by EPA and the Department of Justice  
28 pursuant to paragraphs XVII.A.2 and XVII.A.3 above shall be made



1 by certified check(s) within thirty (30) days of notice of entry  
2 of the Consent Decree. Payments to the EPA Hazardous Superfund  
3 shall be made payable to "EPA Hazardous Superfund" and shall  
4 reference the "Operating Industries, Inc. Superfund Site." The  
5 certified check(s) shall be mailed to:

6 U.S. Environmental Protection Agency, Region IX  
7 ATTENTION: Superfund Accounting  
8 P.O. Box 360863M  
Pittsburgh, PA 15251

9 A copy of all transmittal letters and a copy of all checks shall  
10 be sent to the EPA and the Department of Justice as provided in  
11 Section XXVII (Form of Notice, page 97).

12 B. State Past Response Costs

13 1. Defendants agree to reimburse the State of  
14 California Hazardous Substance Account for certain past response  
15 costs that have been incurred by the State in responding to  
16 conditions at the OII Site.

17 2. The State will provide Defendants with an  
18 accounting of its costs for the period from June 1, 1988 up to  
19 and including December 31, 1990.

20 3. Defendants shall make payments by certified check  
21 in the amounts set forth in Exhibits C and D to this Decree,  
22 within thirty (30) days of notice of entry of this Decree. The  
23 check(s) shall be made payable to the California Department of  
24 Toxic Substances Control, and shall reference the "Operating  
25 Industries Superfund Site." Defendants shall forward the  
26 certified check(s) to:  
27  
28

1 California Department of Toxic Substances Control  
2 Attn: Accounting/Cashier  
3 P.O. Box 806  
4 Sacramento, CA 95812-0806

4 4. A copy of the transmittal letter and a copy of the  
5 check shall be sent to the State Project Coordinator, as provided  
6 by Section XXVII (Form of Notice, page 97).

7 C. United States' Future Oversight Costs

8 1. Work Defendants shall reimburse EPA's Hazardous  
9 Substance Superfund for the oversight costs incurred by the  
10 United States under this Decree for Work, as well as the costs  
11 incurred by the United States in oversight of the activities  
12 performed pursuant to paragraph VIII.A.1 (Cover Protection  
13 Component of the Cover System for the North Slope of the South  
14 Parcel, on page 29) of Section VIII (Excluded Work). EPA will  
15 provide Work Defendants with a copy of the EPA Cost Documentation  
16 Management System (CDMS) documentation that provides an  
17 accounting of such costs. These oversight costs shall be paid by  
18 certified check within thirty (30) days of receipt of the CDMS  
19 documentation. Work Defendants shall pay the first \$16 million  
20 of such costs and all such costs over \$21 million. The United  
21 States will bill for oversight on a periodic basis, no more  
22 frequently than annually. Nothing in this paragraph shall affect  
23 EPA's right to reimbursement of its oversight costs from any  
24 other person not a signatory to this Decree.

25 2. The check(s) shall be made payable to "EPA  
26 Hazardous Substance Superfund," and shall reference the  
27 "Operating Industries, Inc. Superfund Site." Work Defendants  
28 shall forward the certified check(s) to:

1 U.S. Environmental Protection Agency, Region IX  
2 ATTENTION: Superfund Accounting  
3 P. O. Box 360863M  
4 Pittsburgh, PA 15251

5 3. A copy of all transmittal letters and a copy of  
6 all checks shall be sent to the EPA and the Department of Justice  
7 as provided in Section XXVII (Form of Notice, page 97).

8 D. State's Future Oversight Costs

9 1. Work Defendants shall reimburse the State and the  
10 California Hazardous Substance Account for the oversight costs  
11 incurred by them under this Decree for Work, as well as the costs  
12 incurred by the State in oversight of the activities performed  
13 pursuant to paragraph VIII.A.1 (Cover Protection Component of the  
14 Cover System for the North Slope of the South Parcel, on page  
15 29), of Section VIII (Excluded Work). The State will provide  
16 Work Defendants with an accounting of its costs. These oversight  
17 costs shall be paid by certified check within thirty (30) days of  
18 receipt of the accounting documentation. Work Defendants shall  
19 pay the first \$540,000 of such costs and all such costs over  
20 \$740,000. The State will bill for oversight on a periodic basis,  
21 no more frequently than annually. Nothing in this paragraph  
22 shall affect the State's right to reimbursement of its oversight  
23 costs from any other person not a signatory to this Decree.

24 2. The check(s) shall be made payable to the  
25 California Department of Toxic Substances Control, and shall  
26 reference the "Operating Industries, Inc. Superfund Site." Work  
27 Defendants shall forward the certified check(s) to:  
28

1 California Department of Toxic Substances Control  
2 Attn: Accounting/Cashier  
3 P.O. Box 806  
4 Sacramento, CA 95812-0806

5 3. A copy of the transmittal letter and a copy of the  
6 check shall be sent to the State Project Coordinator, as provided  
7 by Section XXVII (Form of Notice, page 97).

8 E. Future Costs of Work or Excluded Work

9 1. The Work Defendants shall reimburse EPA's  
10 Hazardous Substance Superfund or the State for the costs incurred  
11 for any activities outlined in paragraph VII.C.7 (on page 29) of  
12 Section VII (Work To Be Performed) pursuant to the provisions of  
13 paragraph XXVI.D (on page 94) of Section XXVI (Reservation of  
14 Rights). The Work Defendants shall, within thirty (30) days of  
15 receipt of demand for payment, remit a check for the amount of  
16 these costs made payable to the Hazardous Substance Superfund or  
17 the Department of Toxic Substances Control, as appropriate.

18 2. For each item of Excluded Work as described in  
19 paragraphs VIII.A.1, VIII.A.2, and VIII.A.3 of Section VIII  
20 (Excluded Work, page 29), the Work Defendants shall pay all costs  
21 over \$6 million incurred for each such item performed by Work  
22 Defendants, EPA, the USACE, or the State, or by contractors for  
23 any of them, pursuant to the provisions of that Section. The  
24 Work Defendants shall remit payment by certified check within  
25 thirty (30) days of receipt of demand for payment. Payment shall  
26 be made, as directed by EPA, to the Cash Escrow Account, EPA's  
27 Hazardous Substance Superfund, or the State.

28 3. Reimbursement shall also be required in the event  
that EPA determines that (1) Work Defendants have failed to-

1 perform any material portion of the Work; (2) Work Defendants  
2 have performed any portion of the Work in a substantially  
3 inadequate or substantially untimely manner; (3) there is an  
4 imminent and substantial endangerment to the public health or  
5 welfare or the environment resulting from the performance of Work  
6 by the Work Defendants; or (4) there is an imminent and  
7 substantial endangerment to the public health or welfare of the  
8 environment resulting from the failure to perform Work by the  
9 Work Defendants, and EPA or its designee, including the State,  
10 incurs costs due to the assumption of Work. If EPA or its  
11 designee assumes performance of any portion of the Work based on  
12 such a determination, the Work Defendants shall, within thirty  
13 (30) days of receipt of demand for payment, remit a check for the  
14 demanded amount of these costs made payable to the EPA Hazardous  
15 Substance Superfund or the DTSC, as appropriate.

16 F. Any payment made pursuant to this Section shall not  
17 constitute an admission by Defendants of any liability to EPA,  
18 the State, or any other person or agency.

19 G. Each Cash Defendant's monetary obligation under this  
20 Decree shall be limited to the amounts set forth in Exhibit C,  
21 except as otherwise provided in this Decree.

## 22 23 XVIII. ESCROW ACCOUNT

24 A. Work Defendants shall establish the "OII Third Partial  
25 Consent Decree Escrow Account" no later than ten (10) working  
26 days after the effective date of this Decree. The Escrow Account  
27 shall have one interest bearing account titled "Work" and one  
28 interest bearing account titled "Cash," and these accounts shall

1 be segregated from each other.

2 B. A copy of the Escrow Agreement establishing the Escrow  
3 Account shall be sent to EPA and the State as soon as possible  
4 thereafter for approval primarily to ensure that the escrowed  
5 funds will be handled as set forth by this Decree. Neither EPA  
6 nor the State, through its approval of the terms of the Escrow  
7 Account, guarantees the sufficiency of the Escrow Account  
8 established by this Section.

9 C. Work Defendants shall deposit \$1 million into the Work  
10 Escrow Account within 30 days of notice of entry of this Decree.  
11 The Escrow Agreement shall instruct and authorize the Escrow  
12 Manager to disburse the money in the Work Escrow Account for the  
13 following:

14 1. To pay the Work Defendants' contractor(s) for the  
15 Work, including the Excluded Work if performed by Work  
16 Defendants; and

17 2. To pay for other expenses, including any incurred  
18 penalties, required to be paid by the Work Defendants pursuant to  
19 this Decree and Exhibits hereto.

20 D. The Escrow Agreement shall instruct and authorize the  
21 Escrow Manager to use the money in the Cash Escrow Account for  
22 the purposes and in the amounts requested by EPA. The purposes  
23 include the following: reimbursement of EPA future response  
24 costs; Future Oversight Costs not paid by Work Defendants under  
25 paragraph XVII.C (on page 54) of Section XVII (Reimbursement of  
26 Response Costs); Past Response Costs; Excluded Work; or the costs  
27 of Excluded Work pursuant to Section VIII (Excluded Work, page  
28 29). In the event funds are released from the Cash Escrow

1 Account to Work Defendants for Excluded Work, such expenditures  
2 shall be subject to the requirements and expenditure limitations  
3 set forth in paragraph VIII.E of Section VIII (Excluded Work,  
4 page 29).

5 E. Money received from the Cash Defendants pursuant to  
6 paragraph XVII.A of Section XVII (Reimbursement of Response  
7 Costs, page 51) shall be deposited into the Cash Escrow Account  
8 if directed by Exhibit C. Other funds received pursuant to EPA's  
9 direction or from EPA, if any, may be placed into the Cash Escrow  
10 Account.

11 F. Interest received on each account in the Escrow Account  
12 shall be paid into the account on which it was received and may  
13 be used first to pay for the account fees thereon, and then shall  
14 be used in the same manner and for the same purposes as the other  
15 funds in the account.

16 G. Payment of money by Defendants to the Escrow Account is  
17 not a fine, penalty or monetary sanction.

18 H. The Escrow Agreement shall require that the Escrow  
19 Manager prepare and submit to the Work Defendants monthly  
20 statements on money received and disbursed in the prior thirty  
21 (30) days for both the Work Escrow Account and the Cash Escrow  
22 Account, and the balances in the accounts as of the date of the  
23 statements. A copy of this monthly statement shall be sent  
24 promptly to EPA and the State. In addition, within sixty (60)  
25 days after the establishment of the Escrow Account, and every  
26 ninety (90) days thereafter, in conjunction with the issuance of  
27 the most recent monthly statement by the Escrow Manager, the Work  
28 Defendants shall submit a financial report to EPA and the State.

1 The financial report shall include cash flow projections for the  
2 amount of money estimated to be necessary for the Work Escrow  
3 Account expenses described in paragraph XVIII.C above, for the  
4 following ninety (90) day period. If the amount of money in the  
5 Work Escrow Account is less than the amount projected by the Work  
6 Defendants' report to be needed for the following ninety (90)  
7 days, Work Defendants shall deposit in the Work Escrow Account,  
8 within thirty (30) days, sufficient money to bring the level of  
9 the Work Escrow Account up to the amount projected to be needed  
10 for the following ninety (90) days.

11 I. Work Defendants shall submit an annual report to EPA  
12 and the State which shall include a summary of money received and  
13 disbursed in the preceding twelve (12) month period, for each  
14 Escrow Account. This financial report also shall identify all  
15 disbursements which the Work Defendants assert apply against the  
16 funding limitations in paragraphs XVII.C (United States' Future  
17 Oversight Costs, on page 54) and XVII.D (State's Future Oversight  
18 Costs, on page 55) of Section XVII (Reimbursement of Response  
19 Costs).

20 J. Upon termination of the terms of this Decree pursuant  
21 to Section XLII (Termination and Satisfaction, page 107), any  
22 funds which remain in the Cash Escrow Account shall be paid into  
23 the "EPA Hazardous Substance Superfund." Any funds which remain  
24 in the Work Escrow Account shall be distributed as directed by  
25 the Work Defendants.

26 K. Work Defendants shall collect when due and shall  
27 deposit to the Cash Escrow Account upon receipt, all funds owing  
28 to Work Defendants for costs of Work, Excluded Work, Past



1 Response Costs, and Future Oversight Costs, from the settlement  
2 in the proceedings in bankruptcy for Smith Tool. For any other  
3 bankruptcy settlement entered during the term of this Decree in  
4 which the United States has filed a claim and for which a  
5 settlement is reached between the United States and the person in  
6 bankruptcy that provides for payments to be made to the Work  
7 Defendants for reimbursement for costs of Work, Excluded Work,  
8 Past Response Costs or Future Oversight Costs, Work Defendants  
9 shall collect when due and shall deposit such payments in the  
10 Cash Escrow Account upon receipt. These funds shall be used as  
11 requested by EPA and shall not be credited to Work Defendants for  
12 purposes of Work Defendants' funding limitations for Future  
13 Oversight Costs nor Work Defendants' guarantee for the United  
14 States' Past Response Costs.

15  
16 **XIX. PRIORITY OF CLAIMS**

17 The Defendants' claims against any other party for  
18 contribution or indemnification of all or a portion of the cost  
19 of their settlement herein shall be subordinate to any claim of  
20 the United States against such other party relating to the OII  
21 Site as to any unreimbursed costs for the response actions taken  
22 or other costs incurred by the United States related to the Site,  
23 as provided for by Section 113(f)(3)(C) of CERCLA, 42 U.S.C.  
24 § 9613(f)(3)(C). The United States shall have priority over the  
25 Defendants in the collection of any judgment obtained against any  
26 non-settling party. Defendants shall notify EPA of any  
27 contribution or indemnification action with regard to the Site.

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1 Defendants are not, and shall not be held out as, parties to any  
2 contract entered into by or on behalf of Work Defendants in  
3 carrying out activities pursuant to this Consent Decree. Neither  
4 Work Defendants nor any such contractor shall be considered an  
5 agent of the United States, EPA or the State.

6 C. Defendants waive all claims against the United States  
7 and the State for damages or reimbursement or for setoff of any  
8 payments made or to be made to the United States or the State,  
9 arising from or on account of any contract, agreement, or  
10 arrangement between any one or more of the Defendants and any  
11 person for performance of Work on or relating to the Site,  
12 including, but not limited to, claims on account of construction  
13 delays. In addition, Defendants shall indemnify and hold  
14 harmless the United States and the State with respect to any and  
15 all claims for damages or reimbursement arising from or on  
16 account of any contract, agreement, or arrangement between any  
17 one or more of Defendants and any person for performance of Work  
18 on or relating to the Site, including but not limited to claims  
19 on account of construction delays.

20 D. Work Defendants agree to indemnify and hold Cash  
21 Defendants and their directors, officers and employees harmless  
22 from damages or claims arising as a result of negligent  
23 performance of the Work, or of negligent, willful, or wanton  
24 failure to perform the Work by the Work Defendants or their  
25 contractors or subcontractors. This indemnity and hold harmless  
26 as to Cash Defendants shall not apply to any Cash Defendant which  
27 is not in compliance with the terms of this Decree. Furthermore,  
28 this indemnity and hold harmless shall not include any damages or

1 claims arising as a result of any negligent, willful or wanton  
2 act or omission of any Cash Defendant or its directors, officers  
3 or employees, nor shall it include any damages or claims which  
4 arise or result from conditions at the Site which are not the  
5 result of the Work performed under this Decree by the Work  
6 Defendants or their contractors or subcontractors. Without  
7 limiting the foregoing, the Work Defendants' obligation as to the  
8 Cash Defendants shall not apply to any claim or cause of action  
9 arising prior to the effective date of this Decree or to the  
10 extent of any liability attributable to any third party,  
11 including EPA, the State or any Cash Defendant. Any Cash  
12 Defendant shall notify Work Defendants of any such claim or  
13 action within thirty (30) days of receiving notice that such a  
14 claim or action has been filed. Work Defendants shall have the  
15 right to join in the defense of all claims or causes of action  
16 within the scope of this indemnification. Further, unless Work  
17 Defendants refuse to join in the defense as herein provided, Cash  
18 Defendants shall not take or fail to take any action which would  
19 prejudice Work Defendants' rights, privileges, defenses, or  
20 claims, and shall not settle any claim or cause of action within  
21 the scope of this indemnification without the consent of the Work  
22 Defendants. Nothing in this paragraph XX.D shall be construed to  
23 affect or pertain to the indemnification of the United States or  
24 the State, as set forth in paragraph XX.A of this Section.

25 E. No later than 15 days after the effective date of this  
26 Consent Decree, Work Defendants shall secure and shall maintain  
27 for the duration of this Consent Decree, the following insurance  
28 covering claims arising out of activities or events related to

1 this Consent Decree or the Site: (1) comprehensive general  
2 liability insurance with limits of one million dollars, naming  
3 the United States as insured; (2) automobile insurance with  
4 limits of one million dollars, naming the United States as  
5 insured; and (3) employer's liability insurance with limits of at  
6 least one million dollars per occurrence. Further, Work  
7 Defendants shall use best efforts to secure and maintain  
8 professional liability insurance with limits of at least one  
9 million dollars per occurrence. In addition, for the duration of  
10 this Consent Decree, Work Defendants shall satisfy, and shall  
11 ensure that their contractors and subcontractors satisfy, all  
12 applicable laws and regulations regarding the provision of  
13 worker's compensation insurance for all persons performing work  
14 on behalf of Work Defendants in furtherance of this Consent  
15 Decree. Prior to commencement of the Work under this Consent  
16 Decree, Work Defendants shall provide to EPA certificates of such  
17 insurance and a copy of each insurance policy. Work Defendants  
18 shall resubmit such certificates and shall provide notification  
19 of any significant changes in the policies, each year on the  
20 anniversary of the effective date of this Consent Decree. If  
21 Work Defendants demonstrate by evidence satisfactory to EPA that  
22 any contractor or subcontractor maintains insurance equivalent to  
23 that described above, or insurance covering the same risks but in  
24 a lesser amount, then with respect to that contractor or sub-  
25 contractor Work Defendants need prove only that portion of the  
26 insurance described above which is not maintained by the  
27 contractor or subcontractor.

1           **XXI.       FORCE MAJEURE**

2           A.     For purposes of this Consent Decree, force majeure is  
3 defined as any event arising from causes beyond the control of  
4 the Work Defendants, including, but not limited to, their  
5 contractors, subcontractors, agents or consultants, that delays  
6 or prevents the performance of any obligation under this Consent  
7 Decree despite Work Defendants' best efforts to fulfill the  
8 obligation. Force majeure shall not include: (1) increased  
9 costs or expenses of any of the Work to be performed under this  
10 Decree; nor (2) the financial inability of any of the Work  
11 Defendants to perform such Work; nor (3) normal inclement  
12 weather; nor (4) the failure of Work Defendants to make timely  
13 application for any required permits or approvals, and to provide  
14 all information required therefor in a timely manner.

15          B.     The requirement that Work Defendants exercise "best  
16 efforts to fulfill the obligation" includes using best efforts to  
17 identify any potential force majeure event and best efforts to  
18 address the effects of any potential force majeure event: (1) as  
19 it is occurring, and (2) following the force majeure event, so  
20 that the delay is minimized to the greatest extent possible.

21          C.     If any event occurs or has occurred that may delay the  
22 performance of any obligation under this Consent Decree, and Work  
23 Defendants intend to invoke the force majeure provisions of this  
24 Section, the Work Defendants shall orally notify EPA's Project  
25 Coordinator or, in his or her absence, EPA's Alternate Project  
26 Coordinator or, in the event both of EPA's Project Coordinators  
27 are unavailable, the Director of the Hazardous Waste Management  
28 Division, EPA Region IX, as soon as possible but no later than 72

1 hours of when Work Defendants first knew or should have known  
2 that the event might cause a delay. Within five (5) working days  
3 of the oral notification, Work Defendants shall provide in  
4 writing to the EPA Project Coordinator a description of the cause  
5 of the delay and the anticipated duration of the delay and, to  
6 the extent possible at that time: all actions taken or to be  
7 taken to prevent or minimize the delay; the schedule for  
8 implementation of any measures to be taken to prevent or mitigate  
9 the delay or the effect of the delay; Work Defendants' rationale  
10 for attributing such delay to a force majeure event; and a  
11 statement as to whether, in the opinion of Work Defendants, such  
12 event may cause or contribute to an endangerment to public  
13 health, welfare or the environment. Work Defendants shall  
14 include with any notice all available documentation supporting  
15 their claim that the delay was attributable to a force majeure  
16 event. Failure to comply with the above requirements of this  
17 Section shall preclude Work Defendants from asserting a claim of  
18 force majeure for that event. Work Defendants shall be deemed to  
19 have notice of any circumstances of which their contractors or  
20 subcontractors had or should have had notice.

21 D. If EPA agrees that the delay or anticipated delay is  
22 attributable to a force majeure event, the time for performance  
23 of the obligations under this Consent Decree that are affected by  
24 the force majeure event shall be extended by written agreement of  
25 EPA and Work Defendants for such time as is necessary to complete  
26 those obligations. An extension of the time for performance of  
27 the obligations affected by the force majeure event shall not, of  
28 itself, extend the time for performance of any subsequent

1 obligation.

2 E. If EPA does not agree that the delay or anticipated  
3 delay has been or will be caused by a force majeure event, or if  
4 EPA and the Work Defendants do not agree on the length of the  
5 extension for performance of the obligations affected by a force  
6 majeure event, EPA shall notify the Work Defendants in writing of  
7 its decision and the basis for its decision concerning whether  
8 the delay is attributable to a force majeure event or the length  
9 of the extension for performance of the obligations affected by a  
10 force majeure event. If EPA determines that the event did not  
11 constitute force majeure, then any delay caused by the event  
12 claimed to be force majeure by the Work Defendants shall  
13 constitute a violation of the Consent Decree and penalties shall  
14 accrue from the date of violation.

15 F. Except as provided by this Decree, no deadline shall be  
16 extended beyond that period of time which is necessary to  
17 complete the activities with the shortest possible delay and in  
18 no case beyond the actual delay attributable to the force majeure  
19 event. Use of the force majeure provision shall not relieve Work  
20 Defendants of their duty to complete all other tasks not  
21 substantially affected in a timely manner in accordance with the  
22 schedules required by this Consent Decree and the Exhibits. Work  
23 Defendants shall act to avoid or minimize delay.

24 G. If Work Defendants elect to invoke the dispute  
25 resolution procedures set forth in Section XXII (Dispute  
26 Resolution, page 69), they shall do so no later than 15 days  
27 after receipt of EPA's notice pursuant to paragraph XXI.E of this  
28 Section. In any such proceeding and to the extent the facts are



1 not stipulated to by the Parties, Work Defendants shall have the  
2 burden of demonstrating by a preponderance of the evidence that  
3 the delay or anticipated delay has been or will be caused by a  
4 force majeure event, that the duration of the delay was or will  
5 be warranted under the circumstances, that best efforts were  
6 exercised to avoid and mitigate the effects of the delay, and  
7 that Work Defendants complied with the requirements of this  
8 Section. If it is determined that Work Defendants have carried  
9 this burden, the delay at issue shall be deemed not to be a  
10 violation by Work Defendants of the affected obligation of this  
11 Consent Decree identified to EPA and the Court, or as provided in  
12 paragraph XXI.D (on page 67) of this Section.

13 H. The Cash Defendants shall not invoke the provisions of  
14 this Section.

15  
16 **XXII. DISPUTE RESOLUTION**

17 **A. General Provisions**

18 1. Unless otherwise expressly provided for in this  
19 Consent Decree, the dispute resolution procedures of this Section  
20 shall be the exclusive mechanism to resolve disputes arising  
21 under or with respect to this Consent Decree and shall apply to  
22 all provisions of this Consent Decree.

23 2. The dollar amounts specified for stipulated  
24 penalties under Section XXIII (Stipulated Penalties, page 73),  
25 are not subject to dispute resolution. Use of the dispute  
26 resolution provision will not relieve Work Defendants of their  
27 duty to complete all other tasks that are not disputed nor  
28 substantially affected by the disputed issue in a timely manner

1 in accordance with the schedules set forth in or developed  
2 pursuant to this Consent Decree.

3 3. Nothing herein shall be construed to allow the  
4 Work Defendants to dispute the Gas ROD.

5 B. Informal Dispute Resolution

6 1. Any dispute which arises under or with respect to  
7 this Consent Decree shall in the first instance be the subject of  
8 informal negotiations between the parties to this dispute. The  
9 period for informal negotiations shall not exceed 20 days from  
10 the time the dispute arises, unless it is extended by agreement  
11 of the parties to the dispute. The dispute shall be considered  
12 to have arisen when one party notifies the other parties in  
13 writing that there is a dispute. The State may participate in  
14 these negotiations, consistent with the provisions of paragraphs  
15 XXXV.A and XXXV.B of Section XXXV (State and Local Agency  
16 Participation, page 103).

17 2. In the event that the parties cannot resolve a  
18 dispute by informal negotiations under the preceding paragraph  
19 XXII.B.1, then the position advanced by EPA shall be considered  
20 binding unless, within 10 days after the conclusion of the  
21 informal negotiation period, Work Defendants invoke the formal  
22 dispute resolution provisions of this Section by submitting to  
23 EPA a written statement of position on the matter in dispute,  
24 including, but not limited to, any data, analysis or opinion  
25 supporting that position and any documentation relied upon by  
26 Work Defendants. Work Defendants' decision to invoke dispute  
27 resolution shall not in and of itself constitute a force majeure  
28 event under Section XXI (Force Majeure, page 66). The Work

1 Defendants reserve the right to dispute a determination regarding  
2 whether a force majeure event has occurred.

3 C. Formal Dispute Resolution Mechanism

4 1. Formal dispute resolution for disputes shall be  
5 conducted pursuant to the procedures set forth in this paragraph  
6 XXII.C.

7 a. The administrative record of the dispute  
8 shall be maintained by EPA and shall include all statements of  
9 position, including supporting documentation, submitted pursuant  
10 to this paragraph XXII.C and paragraph XXII.B.2 above.

11 b. Within twenty-one (21) days after receipt of  
12 Work Defendants' statement of position submitted pursuant to  
13 paragraph XXII.B.2, EPA shall serve on Work Defendants its  
14 statement of position, including, but not limited to, any factual  
15 data, analysis, or opinion supporting that position and all  
16 supporting documentation relied upon by EPA, in response to Work  
17 Defendants' statement of position. Where appropriate, EPA may  
18 allow submission of supplemental statements of position by the  
19 parties to the dispute, such as where new information has been  
20 provided in a response.

21 c. The Director of the Hazardous Waste  
22 Management Division, EPA Region IX or his or her designee, but  
23 not the Project Coordinator designated pursuant to Section XIII  
24 (Project Coordinators, page 38), shall issue a final  
25 administrative decision resolving the dispute which shall be  
26 based on the administrative record compiled pursuant to this  
27 Section. This decision shall be binding upon the Work  
28 Defendants, subject only to the right to seek judicial review

1 pursuant to paragraphs XXII.C.1.d and XXII.C.1.e below.

2           d. Any administrative decision by EPA pursuant  
3 to paragraph XXII.C.1.c above shall be reviewable by this Court,  
4 provided that a notice of judicial appeal is filed by the Work  
5 Defendants with the Court and served on all parties within 15  
6 days of receipt of EPA's decision. The notice of judicial appeal  
7 shall include a description of the matter in dispute, the efforts  
8 made by the parties to resolve it, and the relief requested.  
9 Within thirty (30) days of receipt by EPA of such notice or  
10 within the schedule set forth by the court, the United States or  
11 the State may file a response to Work Defendants' notice of  
12 judicial appeal. In proceedings on any dispute relating to the  
13 selection, technique, cost effectiveness or adequacy of any  
14 aspect of the Work and in any other dispute subject to CERCLA  
15 Sections 113(j)(1) and (2), 42 U.S.C. §§ 9613(j)(1) and (2), in  
16 considering Work Defendants' objections, the Court shall uphold  
17 EPA's decision unless Work Defendants can demonstrate, on the  
18 administrative record compiled pursuant to this Section, that  
19 EPA's decision was arbitrary and capricious or otherwise not in  
20 accordance with law. In other disputes, except as specified in  
21 this Section and in paragraph XXI.G (on page 68) of Section XXI  
22 (Force Majeure), the appropriate standard of judicial review and  
23 scope of materials to be considered by the Court shall be  
24 determined by the Court.

25           e. Work Defendants shall have the burden of  
26 persuasion on factual issues.

1       D.   Work Defendants' Work Obligations During Dispute  
2   Resolution

3       Notwithstanding the invocation of the procedures stated in  
4   this Section, Work Defendants shall continue to perform their  
5   other obligations under this Consent Decree, including those that  
6   are not disputed or not substantially affected by the disputed  
7   issue.

8       E.   Obligations After Resolution of Dispute

9       If the Court finds that the Work Defendants have not  
10   satisfied their burden, the Work Defendants shall transmit  
11   payment of all penalties which have accrued during the dispute,  
12   plus interest at the rate specified in Section 107(a) of CERCLA,  
13   to the Hazardous Substance Superfund, within fifteen (15) working  
14   days of the Court's entry of the order or decision resolving the  
15   dispute. The Work Defendants shall then implement the disputed  
16   matter as resolved and perform the work which was the subject of  
17   the dispute, if required. The appropriate plans should be  
18   amended to reflect the resolution of the dispute. In any dispute  
19   in which the Work Defendants prevail: (1) the deadlines for any  
20   affected deliverables shall be extended to account fully for any  
21   delays attributable to the dispute resolution procedures; and (2)  
22   any penalties which would otherwise accrue for violations of any  
23   affected deliverable shall be void.

24  
25       XXIII.       STIPULATED PENALTIES

26       A.   General Provisions

27       1.   Work Defendants shall be liable for stipulated  
28   penalties where EPA determines that there has been: (a) late or

1 inadequate submittal or resubmittal of a document or deliverable  
2 required by this Decree; (b) late or inadequate payment; (c)  
3 untimely or inadequate Work; (d) unauthorized activity at the  
4 Site; (e) violation of Section XVI (Retention of Records, page  
5 48); (f) failure to achieve a Performance Standard after EPA  
6 approval of the Construction Completion Report; or (g) failure to  
7 achieve any other requirement under, or to comply with the terms  
8 of this Consent Decree.

9           2. For an inadequate submittal or inadequate Work,  
10 EPA shall provide to Work Defendants, as soon as possible, oral  
11 notification of the occurrence of an event that triggers  
12 stipulated penalties, with written confirmation within seven (7)  
13 days of the occurrence of the event. For purposes of this  
14 paragraph XXIII.A.2, stipulated penalties shall accrue from the  
15 date on which Work Defendants receive such written confirmation.  
16 Notification shall not be required for late or untimely  
17 submittals.

18           3. Each Cash Defendant shall be liable for stipulated  
19 penalties for: (1) late or inadequate payment pursuant to  
20 paragraph XVII.A.4 (Payments by Cash Defendants, page 52) of  
21 Section XVII (Reimbursement of Response Costs) and Exhibit C to  
22 this Decree; or (2) a violation of Section XVI (Retention of  
23 Records, page 48). The stipulated penalty for any late payment  
24 or payment of less than the full amount due under this Decree  
25 shall be \$25,000 per day. Payments shall be made in accordance  
26 with paragraph XXIII.A.5 of this Section.

27           4. Penalties shall accrue from the date on which a  
28 violation of this Decree occurs and shall continue to accrue

1 through the final day of the noncompliance.

2           5.     Stipulated penalties under this paragraph XXIII.A  
3 shall be paid by certified check made payable to the Hazardous  
4 Substance Superfund, and addressed as indicated in Section XVII  
5 (Reimbursement of Response Costs, page 51) and shall be paid  
6 within thirty (30) days of receipt of the written demand for  
7 payment of stipulated penalties. Failure to pay a stipulated  
8 penalty on time also constitutes an event subject to stipulated  
9 penalties. A copy of the check and the letter forwarding the  
10 check, including identification of this Consent Decree and a  
11 brief description of the triggering event, shall be submitted to  
12 the United States in accordance with the directions set forth in  
13 Section XXVII (Form of Notice, page 97) herein.

14           6.     Defendants shall pay interest on all stipulated  
15 penalties, which shall accrue from the date payment is due at the  
16 rate established by the Department of Treasury under 31 U.S.C.  
17 § 3717 and 4 C.F.R. § 102.13.

18           7.     Notwithstanding the stipulated penalties specified  
19 in the provisions of this Section, and to the extent authorized  
20 by law, EPA or the State may elect to assess civil penalties or  
21 bring an action in District Court to enforce the provisions of  
22 this Consent Decree. Payment of stipulated penalties shall not  
23 preclude EPA or the State from electing to pursue any other  
24 remedy or sanction against any Defendant to enforce this Consent  
25 Decree, and nothing shall preclude EPA or the State from seeking  
26 statutory penalties against the Work Defendants for violations of  
27 statutory or regulatory requirements relating to the performance  
28 of the Work under this Decree, provided that the total shall not

1 exceed the CERCLA statutory maximum per day per violation.

2           8. In the event the EPA or its designee assumes the  
3 performance of a portion or all of the Work, pursuant to  
4 paragraph VII.C.7 (Failure to Perform, page 29) of Section VII  
5 (Work To Be Performed), and Section XXVI (Reservation of Rights,  
6 page 93), the Work Defendants shall be liable for stipulated  
7 penalties pursuant to this Section. If the EPA or its designee  
8 performs all or a portion of the Work because of the Work  
9 Defendants' failure to comply with their obligations under this  
10 Consent Decree, the Work Defendants shall reimburse the EPA for  
11 the costs of doing such work, plus penalties pursuant to this  
12 Section, within thirty (30) days of receipt of demand for payment  
13 of such costs.

14           9. The Work Defendants are jointly and severally  
15 liable for any stipulated penalties pursuant to the provisions of  
16 this Section provided, however, that the total amount due and  
17 payable for each day of each violation shall not exceed those  
18 limits specified in this Section. The dollar amounts specified  
19 for penalties are not subject to Section XXII (Dispute  
20 Resolution, page 69). In the event that Work Defendants invoke  
21 dispute resolution under Section XXII (Dispute Resolution, page  
22 69), the dispute resolution process shall not toll or suspend the  
23 accrual of stipulated penalties nor accrual of interest thereon.

24           10. Separate penalties shall accrue simultaneously  
25 for separate violations of this Consent Decree.

26           11. Except as provided in Section XXII (Dispute  
27 Resolution, page 69), neither the invocation of dispute  
28 resolution procedures under Section XXII (Dispute Resolution,



1 page 69) nor the payment of penalties shall alter in any way Work  
2 Defendants' obligation to complete the performance of the Work  
3 required under this Consent Decree.

4 12. No payments made under this Section shall be tax  
5 deductible for Federal tax purposes.

6 B. Deliverables Required Pursuant to this Decree

7 Any Reports, Plans, specifications, schedules,  
8 amendments, revisions, and appendices required by this Consent  
9 Decree are, upon approval by EPA, incorporated into this Consent  
10 Decree, but only to the extent not inconsistent with this Decree.  
11 Except as provided in paragraph VII.C.6 (on page 28) of Section  
12 VII (Work To Be Performed), EPA reserves the right to disapprove  
13 any such documents. Any noncompliance with such EPA-approved  
14 Reports, Plans, specifications, schedules, amendments, revisions,  
15 and appendices shall be considered a violation of this Consent  
16 Decree and subject to stipulated penalties as governed by this  
17 Section. The Work Defendants shall pay the following stipulated  
18 penalties for each failure to comply with the requirements of  
19 this Decree, including but not limited to all implementation  
20 schedules and performance and submission dates:

21 1. Progress Reports

22 If EPA determines that a Progress Report is inade-  
23 quate, or if the Work Defendants fail to submit any required  
24 Progress Report according to schedule, then the Work Defendants  
25 shall be considered to be in violation of this Consent Decree and  
26 Work Defendants shall pay stipulated penalties of \$1,000 per day  
27 for each such violation.  
28

1                   2.   Amount of Stipulated Penalties by Class

2                   For purposes of the amount of stipulated  
3 penalties, each deliverable other than Progress Reports shall be  
4 designated by a Class as set forth below.

5                   a.   Class I Requirements

6

Period of Failure to Comply	Penalty per day per event
1st through 30th day	\$ 2,500
31st through 45th day	\$ 8,000
46th day and beyond	\$10,000

10

11                   b.   Class II Requirements

12

Period of Failure to Comply	Penalty per day per event
1st through 15th day	\$ 3,000
16th through 30th day	\$ 7,000
31st through 45th day	\$10,000
46th day and beyond	\$15,000

17

18                   c.   Class III Requirements

19

Period of Failure to Comply	Penalty per day per event
1st through 15th day	\$ 5,000
16th through 30th day	\$10,000
31st through 45th day	\$15,000
46th day and beyond	\$20,000

24

1                   3.   Deliverable Class List

2                   Classification of deliverables for purposes of the  
3 amount of Stipulated Penalties shall be as follows.

4                   a.    Predesign Period

5

6

Work Plan	
Outline	I
Prefinal	I
Final	III

7

8

9

10

Safety, Health and Emergency Response Plan	
Outline	I
Prefinal	I
Final	III
Amendments (if applicable)	I

11

12

13

14

15

Quality Assurance/Quality Control Plan	
Outline	I
Prefinal	I
Final	III
Amendments (if applicable)	I

16

17

18

19

20

21                   b.    Design Period

22

Predesign Report	
Outline	I
Prefinal	I
Final	III

23

24

25

26

27

28

Design Package	
Preliminary	I
Intermediate	I
Prefinal	I
Final	III

Operations Plan	
Outline	I
Prefinal	I
Final	III
Revised Plan	I
Second Revision (if applicable)	I

c. Construction Period

Contractor Selection Notification	I
-----------------------------------	---

Construction As-Built Reports	
Outline	I
Prefinal	I
Final	III
Revised	I

d. Compliance Testing Period

Compliance Testing Reports	
All	I
Construction Completion Report	I

e. Operation and Maintenance Period

Noncompliance Notifications	
All	III

Compliance Action Plans	
All	II

Compliance Correction Reports	
All	I

Work Completion Reports	
All (including Excluded Work Completion Reports, if applicable)	I

f. Technical Memoranda

Technical Memoranda	
Preliminary Minor Technical Memorandum	I
Final Minor Technical Memorandum	I
Preliminary Major Technical Memorandum	I
Prefinal Major Technical Memorandum	I
Final Major Technical Memorandum	III

4. Other Deliverables

- a. Quarterly Escrow Reports: II
- b. All other deliverables not otherwise identified in this Section: II

c. Other Stipulated Penalties

1. If EPA determines that the Work or any portion of

1 the Work has not been timely commenced, the Work Defendants shall  
2 be deemed to be in violation of this Decree and Class II  
3 stipulated penalties shall accrue from the date on which EPA  
4 determines such Work should have commenced to the actual  
5 commencement date.

6           2. If EPA determines that Work Defendants have failed  
7 to comply with any Integration requirements as defined in the  
8 Scope of Work, Class II stipulated penalties shall accrue during  
9 the period of such noncompliance.

10           3. If EPA determines that Work Defendants have  
11 suspended performance of all or a portion of the Work, unless  
12 otherwise allowed by the terms of this Decree, they shall be  
13 deemed to be in violation of this Decree and shall pay a  
14 stipulated penalty of \$6,000,000 in lieu of any other stipulated  
15 penalties for that specific violation.

16           4. In the event that EPA determines that Work  
17 Defendants have failed to perform any material portion of the  
18 Work or have performed any portion of the Work in a substantially  
19 inadequate or substantially untimely manner, or in the event of  
20 an imminent and substantial endangerment to public health or  
21 welfare or the environment resulting from the performance of, or  
22 the failure to perform Work by Work Defendants, Work Defendants  
23 shall pay a stipulated penalty of \$2,000,000 in lieu of any other  
24 stipulated penalty for that specific violation.

25           5. Defendants' obligations under Section XVI  
26 (Retention of Records, page 48) shall be considered Class II  
27 requirements as set forth in this Section, and any Defendant  
28 failing to comply with such obligations shall be subject to

1 penalties applicable to Class II requirements.

2           6.     The dollar amount specified for a stipulated  
3 penalty under this Section shall be reduced by 35% for any  
4 violation of this Decree by Work Defendants which relates  
5 exclusively to an item of Excluded Work being performed by Work  
6 Defendants under Section VIII (Excluded Work, page 29).

7  
8           **XXIV.           COVENANTS NOT TO SUE**

9           A.     In consideration of the actions that will be performed  
10 and the payments that will be made by the Defendants under the  
11 terms of this Consent Decree, and except as specifically provided  
12 for in this Section, the United States covenants not to sue or to  
13 take administrative action against the Defendants pursuant to  
14 Sections 106 and 107(a) of CERCLA and Section 7003 of RCRA  
15 relating to the Work, Excluded Work, Past Response Costs and  
16 Future Oversight Costs. Except with respect to future liability,  
17 these covenants not to sue shall take effect upon the receipt by  
18 EPA of the payments required by paragraph XVII.A (page 51) of  
19 Section XVII (Reimbursement of Response Costs). With respect to  
20 future liability, these covenants not to sue shall take effect  
21 upon Certification of Completion of the Remedial Action by EPA as  
22 described in Section XXV (Certificate of Completion, page 91).  
23 These covenants not to sue are conditioned upon the complete and  
24 satisfactory performance by Defendants of their obligations under  
25 this Consent Decree. These covenants not to sue extend only to  
26 each Defendant and do not extend to any other person.

27           B.     This Section is not, and shall not be construed as, a  
28 covenant not to sue any Defendant that does not fulfill its

1 obligations arising out of this Decree, or any other person or  
2 entity not a Party to this Decree.

3 C. United States' Pre-certification reservations

4 Notwithstanding any other provision of this Consent Decree,  
5 the United States reserves, and this Consent Decree is without  
6 prejudice to, the right to institute proceedings in this action  
7 or in a new action, or to issue an administrative order seeking  
8 to compel Defendants: (1) to perform further response actions  
9 relating to the Remedial Action as defined in Section XXV  
10 (Certificate of Completion, page 91), or (2) to reimburse the  
11 United States for additional costs of response if, prior to  
12 certification of completion of the Remedial Action:

13 a. conditions at the Site, previously unknown to  
14 the United States, are discovered after the entry  
15 of this Consent Decree, or

16 b. information is received, in whole or in part,  
17 after the entry of this Consent Decree,

18 and these previously unknown conditions or this information  
19 together with any other relevant information indicates that the  
20 Remedial Action is not protective of human health or the  
21 environment.

22 D. United States Post-certification reservations

23 Notwithstanding any other provision of this Consent Decree,  
24 the United States reserves, and this Consent Decree is without  
25 prejudice to, the right to institute proceedings in this action  
26 or in a new action, or to issue an administrative order seeking  
27 to compel Defendants: (1) to perform further response actions  
28 relating to the Remedial Action as defined in Section XXV



1 (Certificate of Completion, page 91), or (2) to reimburse the  
2 United States for additional costs of response if, subsequent to  
3 certification of completion of the Remedial Action:

4 a. conditions at the Site, previously unknown to  
5 the United States, are discovered after the  
6 certification of completion, or

7 b. information is received, in whole or in part,  
8 after the certification of completion,

9 and these previously unknown conditions or this information  
10 together with other relevant information indicate that the  
11 Remedial Action is not protective of human health or the  
12 environment.

13 E. For the purposes of paragraph XXIV.C, the information  
14 previously received by and the conditions known to the United  
15 States shall include only that information and those conditions  
16 set forth in: (1) the Gas ROD; (2) the administrative record  
17 supporting the Gas ROD; and (3) information received by EPA  
18 pursuant to the Remedial Investigation after the completion of  
19 the administrative record supporting the Gas ROD, prior to the  
20 entry of this Decree. For the purposes of paragraph XXIV.D, the  
21 information previously received by and the conditions known to  
22 the United States shall include only that information and those  
23 conditions set forth in: (1) the Gas ROD, (2) the administrative  
24 record supporting the Gas ROD, (3) information submitted to EPA  
25 pursuant to the requirements of this Consent Decree or submitted  
26 to EPA pursuant to any other action implementing the Excluded  
27 Work prior to the certification of completion of the Remedial  
28 Action, and (4) information received by EPA pursuant to the

1 Remedial Investigation after completion of the administrative  
2 record supporting the Gas ROD, prior to the certification of  
3 completion of the Remedial Action.

4 F. Except as provided by this Decree, and subject to  
5 Section XXVI (Reservation of Rights, page 93), the State, the  
6 California Hazardous Substance Account, and the Attorney General  
7 of California (with respect to the authority under California  
8 Government Code §§ 12600-12612) covenant not to sue or take any  
9 administrative action against the Defendants for Work, Excluded  
10 Work and Past Response Costs which are performed satisfactorily  
11 by Defendants. These covenants not to sue shall take effect upon  
12 the receipt by the State of payments required by Section XVII  
13 (Reimbursement of Response Costs, page 51). This covenant not to  
14 sue is conditioned upon complete and satisfactory performance by  
15 Defendants of their obligations under this Consent Decree. These  
16 covenants not to sue extend only to each Defendant and do not  
17 extend to any other person.

18 G. 1. Notwithstanding any other provision in this  
19 Consent Decree, for any Defendant that:

20 a. Failed to submit a list of subsidiaries,  
21 divisions, and affiliated entities to EPA on or before the date  
22 of submission of its signature page; or

23 b. Submitted a list but did not elect to settle  
24 on behalf of any subsidiary, division or affiliated entity  
25 identified by EPA; or

26 c. Submitted a list that failed to include any  
27 subsidiary, division or affiliated entity later identified as a  
28 potentially responsible party by EPA;

1        this covenant not to sue shall extend only to the signatory  
2 Defendant and shall not extend to any subsidiary, division, or  
3 affiliated entity whose volume is not currently included in the  
4 volume attributed to that signatory Defendant as set forth in  
5 Exhibit E, Third Partial Consent Decree 1991 Volumetric List.

6            2.    The names and cash payments for each subsidiary,  
7 division, and affiliated entity, other than those identified in  
8 Exhibits C and D, for which Defendant(s) have elected to settle,  
9 are set forth in Exhibit F hereto. Schedule A of Exhibit F sets  
10 forth the identity of any subsidiary, division and affiliated  
11 entity which has been identified as related to a signatory Work  
12 Defendant. Schedule B sets forth the identity of any subsidiary,  
13 division, or affiliated entity which has been identified as  
14 related to a signatory Cash Defendant.

15            3.    The payments listed in Schedules A and B of  
16 Exhibit F shall be made in the amounts and in the manner set  
17 forth in those Schedules and shall be due thirty (30) days after  
18 notice of entry of the Consent Decree. Payments made by a Work  
19 Defendant on behalf of any subsidiary, division, or affiliated  
20 entity under this paragraph shall not offset the Work Defendants'  
21 guarantee of payment of past costs pursuant to Section XVII  
22 (Reimbursement of Response Costs, page 51).

23            4.    For the purposes of the implementation of this  
24 Consent Decree, upon receipt of payment of the amounts set forth  
25 in Schedule A or Schedule B, each such identified subsidiary,  
26 division or affiliated entity listed in Exhibit F, shall have the  
27 same rights and obligations as a Cash Defendant under this  
28 Decree.

1           5.    Nothing in this paragraph XXIV.G shall be deemed  
2 to grant a covenant not to sue to any person or entity included  
3 on a list submitted pursuant to this paragraph which is not  
4 listed on Exhibit F.

5           H.    Defendants release and covenant not to sue the United  
6 States, including any and all departments, agencies, officers,  
7 administrators, and representatives thereof, for any claim,  
8 counter-claim, or cross-claim asserted, or that could have been  
9 asserted prior to the effective date of this Consent Decree or  
10 arising out of or relating to the Work, Excluded Work, Past  
11 Response Costs, and Future Oversight Costs, including any direct  
12 or indirect claim for reimbursement from the Hazardous Substance  
13 Superfund established through CERCLA Sections 106(b)(2), 111 or  
14 112, Internal Revenue Code 26 U.S.C. § 9507, or any other  
15 provision of law, or to seek any other costs, damages or attor-  
16 neys' fees from the United States, except for any liability for  
17 the Work, Excluded Work, Past Response Costs and Future Oversight  
18 Costs for any federal entity that has not resolved its liability  
19 for the Work, Excluded Work, Past Response Costs, and Future  
20 Oversight Costs under this Decree or its equivalent. Defendants  
21 also release and covenant not to sue the California Hazardous  
22 Substance Account or the State, including any and all officers,  
23 administrators, and representatives thereof for any claim,  
24 counter-claim, or cross-claim asserted, or that could have been  
25 asserted prior to the effective date of this Decree arising out  
26 of or relating to the Work, Excluded Work, Past Response Costs,  
27 and Future Oversight Costs, except for any such liability for any  
28 state entity that has not resolved its liability for the Work,

1 Excluded Work, Past Response Costs, and Future Oversight Costs.

2 I. Notwithstanding any other provision in this Consent  
3 Decree, this covenant not to sue shall not relieve the Defendants  
4 of their obligation to meet and maintain compliance with the  
5 requirements set forth in this Consent Decree, specifically  
6 including the Performance Standards. The United States reserves  
7 all its rights to take response actions at the Site, including  
8 the right to take response action in the event of a breach of the  
9 terms of this Consent Decree and to seek recovery of costs which:  
10 1) result from such a breach; 2) relate to any portion of the  
11 Work funded or performed by the United States; or 3) are  
12 enforcement costs incurred by the United States associated with  
13 the Site.

14 J. Each Defendant is expressly not released from, and the  
15 provisions of paragraph XXIV.A of this Section shall not apply  
16 to, any matter not expressly addressed by this Consent Decree,  
17 including the following claims:

18 1. Any claim based on a failure by any Defendant to  
19 meet the obligations of this Decree;

20 2. Any other claims of the United States, EPA, the  
21 California Hazardous Substance Account or the State for any other  
22 costs or actions at the OII Site which are not Work, Excluded  
23 Work, Past Response Costs or Future Oversight Costs;

24 3. Claims based on the Defendant(s)' liability  
25 arising from the past, present, or future disposal of Waste  
26 Materials not associated with the OII Site at other disposal  
27 sites;

28 4. Any claim based on liability for damage to Federal

1 or State property located any place that the Work is being  
2 performed;

3 5. Claims based on criminal liability;

4 6. Claims based on liability for damage to natural  
5 resources as defined in CERCLA;

6 7. Claims based on liability for Waste Materials  
7 removed from the Site;

8 8. Claims based on liability for monitoring or  
9 oversight expenses incurred by the United States or the State  
10 except as those expenses are recovered by the United States  
11 pursuant to Section XVII (Reimbursement of Response Costs, page  
12 51) or relating to Excluded Work other than the Cover Protection  
13 Component of the North Slope of the South Parcel; or

14 9. Liability for any violations of Federal or State  
15 law which occur during implementation of the Work.

16 K. Nothing in this Consent Decree shall constitute or be  
17 construed as a release or covenant not to sue regarding any claim  
18 or cause of action against any person as defined in Section  
19 101(21) of CERCLA or California Health and Safety Code § 25319,  
20 or any other entity not a signatory to this Consent Decree for  
21 any liability it may have arising out of or relating to the Site.

22 L. The Parties to this Decree agree that while the United  
23 States, EPA, the State and the California Hazardous Substance  
24 Account may support the applicability of Section XXX  
25 (Contribution Protection, page 100) based upon the existence of  
26 this Decree, neither the United States, nor EPA nor the State nor  
27 the California Hazardous Substance Account shall be under any  
28 obligation to support the Defendants in any way in any action for

1 contribution brought by or against the Defendants which alleges  
2 liability for matters addressed by this covenant not to sue.

3 M. Responsibility for Work

4 As to the Cash Defendants, the Work Defendants shall have  
5 the exclusive responsibility for the performance of the Work and,  
6 conditional upon satisfactory completion of all obligations of  
7 Cash Defendants under this Decree, the Cash Defendants shall have  
8 no responsibility to the United States, EPA, the State, the  
9 California Hazardous Substance Account, any other Defendant or  
10 any third party for the performance, or failure of performance,  
11 of the Work Defendants.

12 N. Responsibility for Cash Defendants' Payments

13 The Work Defendants shall have no responsibility to the  
14 United States, EPA, the State, the California Hazardous Substance  
15 Account, any other Defendant, or any third party for any payment  
16 required of, or failure to pay by, any Cash Defendant under this  
17 Decree.

18  
19 XXV. CERTIFICATE OF COMPLETION

20 A. The Parties to this Decree agree that the Work  
21 addresses only a portion of the Remedial Action and that a  
22 Certificate of Completion will be issued by EPA only upon  
23 completion of the Remedial Action. For the purposes of this  
24 Section and Section XXIV (Covenants Not to Sue, page 83),  
25 Remedial Action shall be defined as the Work, the Excluded Work  
26 and three years of the joint performance of operations,  
27 maintenance and monitoring of both the Work and the Excluded Work  
28 to demonstrate that the Work and Excluded Work are successful in

1 attaining the Performance Standards set forth in the Gas ROD and  
2 protecting human health and the environment.

3 B. Application for Certificate of Completion

4 1. In the event the Remedial Action is performed at  
5 the time Work Defendants submit the Work Completion Report for  
6 EPA approval pursuant to Section XLII (Termination and  
7 Satisfaction, page 107), the Work Defendants may petition EPA for  
8 the issuance of the Certificate of Completion pursuant to this  
9 Section. If at the time the Work Defendants submit the Work  
10 Completion Report to EPA for approval, the Work, Excluded Work  
11 and three years of joint operations, maintenance and monitoring  
12 have not been fully performed, Defendants shall not invoke the  
13 provisions of this Section.

14 2. Cash Defendant(s) may petition EPA for issuance of  
15 the Certificate of Completion on the same terms and conditions as  
16 set forth in paragraph XXV.B.1 above; however, prior to such  
17 application Cash Defendant(s) shall notify the Work Defendants  
18 and obtain their consent to this petition. The Work Defendants  
19 shall not unreasonably withhold consent.

20 C. Completion of the Remedial Action

21 1. Within 90 days after Defendants conclude that the  
22 Remedial Action, as defined in paragraph XXV.A, above, has been  
23 performed and the Performance Standards have been attained,  
24 Defendants shall so certify to the United States and the State  
25 and shall schedule and conduct a pre-certification inspection to  
26 be attended by Work Defendants, EPA and the State. If, after the  
27 pre-certification inspection, Defendants still believe that the  
28 Remedial Action has been performed and the Performance Standards



1 have been attained, they shall submit a written report to EPA for  
2 approval pursuant to the procedures set forth in Section 6.3.1 of  
3 the SOW within 30 days of the inspection. In the report, a  
4 registered professional engineer and the Work Defendants Project  
5 Coordinator shall certify that the Remedial Action has been  
6 completed in satisfaction of the requirements of this Consent  
7 Decree. The written report shall include as-built drawings  
8 signed and stamped by a registered professional engineer. The  
9 report shall contain the following statement, signed by the Work  
10 Defendant's Project Coordinator:

11 "To the best of my knowledge, after thorough investigation,  
12 I certify that the information contained in or accompanying  
13 this submission is true, accurate and complete."

14 The State shall participate consistent with the provisions of  
15 Section XXXV (State and Local Agency Participation, page 103).

16 2. If, after completion of the pre-certification  
17 inspection and receipt and review of the written report, EPA  
18 determines that the Remedial Action or any portion thereof has  
19 not been performed, EPA will notify Defendants and state the  
20 basis for its decision.

21 3. If EPA concludes that the Remedial Action has been  
22 fully performed, EPA will issue the Certificate of Completion.

#### 23 24 **XXVI. RESERVATION OF RIGHTS**

25 A. Notwithstanding compliance with the terms of this Con-  
26 sent Decree, including the completion of EPA-approved Work, the  
27 Defendants are not released from liability for any matters other  
28 than those expressly addressed by this Consent Decree. For

1 matters beyond the scope of this Consent Decree, the United  
2 States, EPA, the State, and the California Hazardous Substance  
3 Account reserve the right to take any enforcement action pursuant  
4 to CERCLA and/or any other authority, including the right to seek  
5 response costs, injunctive relief, monetary penalties, and  
6 punitive damages.

7       B. Notwithstanding any other provision in this Decree, the  
8 Covenant Not to Sue, as provided in Section XXIV (Covenants Not  
9 to Sue, page 83), shall not relieve any Defendant of its  
10 obligation to meet and maintain compliance with the requirements  
11 set forth in this Decree. The United States, EPA and the State  
12 reserve all rights to take enforcement actions for violations of  
13 this Decree.

14       C. Except as provided in this Decree, the United States,  
15 EPA and the State reserve the right to take any enforcement  
16 action pursuant to CERCLA and/or any other authority, including  
17 the right to seek Past Response Costs or Future Oversight Costs,  
18 injunctive relief, monetary penalties, and punitive damages for  
19 any civil or criminal violation of law or this Consent Decree.

20       D. In the event EPA determines that the Work Defendants  
21 have failed to implement any provisions of the Work in an  
22 adequate or timely manner, or in the event EPA determines that  
23 any site condition constitutes an imminent or substantial  
24 endangerment to the public health or welfare or the environment,  
25 EPA or its designee may perform any and all portions of the Work  
26 as it determines necessary, subject to the reimbursement  
27 provisions of paragraphs XVII.E.1 and XVII.E.3 (page 56) of  
28 Section XVII (Reimbursement of Response Costs). If EPA decides

1 to perform work that is the subject of this Decree or to have its  
2 designee perform such work, EPA will provide the Work Defendants'  
3 and the State's Project Coordinator with advance notice thereof  
4 and, to the extent practicable, the opportunity for consultation  
5 regarding EPA's intention to perform all or a portion of the  
6 Work. EPA and the State may agree that the State may perform  
7 work pursuant to the provisions of this paragraph.

8 E. Except as provided in Section XXIV (Covenants Not to  
9 Sue, page 83), nothing in this Consent Decree shall be deemed to  
10 limit the response authority of EPA under Section 104 of CERCLA,  
11 42 U.S.C. § 9604, and under Section 106 of CERCLA, 42 U.S.C.  
12 § 9606, or under any other Federal response authority. In either  
13 event, the United States reserves the right to seek reimbursement  
14 from the Defendants for such costs incurred by the United States.

15 F. Except as otherwise provided in this Decree, the United  
16 States expressly reserves all rights and defenses that it may  
17 have, including the right to disapprove of Work performed by the  
18 Work Defendants, to require Work Defendants to correct inadequate  
19 performance of Work, and to request, pursuant to Section IX  
20 (Additional Work, page 34), that the Work Defendants perform  
21 tasks in addition to those detailed in the Plans prepared  
22 pursuant to this Consent Decree.

23 G. The United States further reserves the right to require  
24 Defendants to perform tasks in addition to those detailed in this  
25 Consent Decree, if EPA determines after EPA's approval of  
26 Defendants' Work Completion Report that additional response work  
27 is necessary to carry out the activities required by this Decree  
28 or to meet the Performance Standards.

1 H. Defendants waive any right they might have to initiate  
2 a challenge to the dollar amount specified for stipulated  
3 penalties set out in Section XXIII (Stipulated Penalties, page  
4 73) of this Decree.

5 I. Nothing in this Decree shall be deemed to limit the  
6 response authority of the State under Section 25358.3 of the  
7 California Health and Safety Code or under any other response  
8 authority, except to the extent that Defendants have a covenant  
9 not to sue under Section XXIV (Covenants Not To Sue, page 83).

10 J. In no case shall any Defendant be entitled to a refund  
11 or to assert a claim against the Superfund under Sections  
12 106(b)(2) or 112 of CERCLA for any amount paid, or work  
13 performed, under this Decree even if that Defendant is later  
14 determined, based upon its assertion of defenses, to be not  
15 liable for response costs for the Site or to be liable for  
16 response costs less than those paid or expended pursuant to this  
17 Decree.

18 K. Except as provided in Section I (Jurisdiction, page 3),  
19 Section II (Parties Bound, page 3), and Section XXXVII (Other  
20 Claims, page 105), Defendants expressly reserve all legal and  
21 equitable rights and defenses that they may have under this  
22 Decree, CERCLA, or any other legal authority, including all  
23 arguments concerning compliance with the specific tasks and  
24 requirements of this Decree. Except as provided by this Decree  
25 and Section 113(f)(2) of CERCLA, this reservation of rights  
26 applies to all claims, actions and defenses of Defendants against  
27 nonsettlers, the United States, the State of California, EPA or  
28 any others and to those assertable between and among the

1 individual Defendants. Except as provided in Section XXXI  
2 (Defendants' Right of Contribution and Indemnity and Covenant Not  
3 to Sue Each Other, page 101) and Section XXXVII (Other Claims,  
4 page 105) or otherwise in this Decree, these rights include, but  
5 are not limited to, the right to seek reimbursement for response  
6 actions taken and response costs paid by any of the Defendants at  
7 any time.

8 L. Defendants reserve any and all rights of contribution  
9 from any or all persons who are not Defendants as defined herein  
10 for all costs incurred by Defendants under this Decree or  
11 otherwise complying with the requirements of this Decree.  
12 Nothing in this Decree shall be construed as limiting Defendants'  
13 right to seek contribution from any or all liable persons who are  
14 not Defendants.

15 M. It is the policy of the United States to identify  
16 potentially responsible parties who do not participate in CERCLA  
17 settlements and, subject to its non-reviewable prosecutorial  
18 discretion, to seek performance of remedial action not recovered  
19 by settlement and/or to seek reimbursement of response costs not  
20 covered by settlement, against such nonsettling parties pursuant  
21 to the provisions of CERCLA.

## 22 23 **XXVII. FORM OF NOTICE**

24 A. All communications between the Work Defendants or the  
25 Contractor(s), and EPA and the State made pursuant to this  
26 Consent Decree shall be sent to at least the Work Defendants, the  
27 State and EPA. Subject to paragraph XV.H (on page 47) of Section  
28 XV (Data Exchange: Sampling and Analysis), any Cash Defendant

1 may obtain, upon written request, a copy of any or all such  
2 communications. The cost of copying any such material shall be  
3 borne by the Cash Defendant making the request.

4 B. When notification to or communication with the United  
5 States, EPA, the State, the Work Defendants, or the Work  
6 Defendants under the First Decree is required by the terms of  
7 this Consent Decree, it shall be in writing, postage prepaid, and  
8 addressed as follows:

9  
10 As to the United States:

11 Chief, Environmental Enforcement Section  
12 Environment and Natural Resources Division  
13 Department of Justice  
14 10th and Pennsylvania Avenue, N.W.  
15 Washington, DC 20530

16 As to EPA:

17 EPA Project Coordinator - OII Site  
18 Superfund Enforcement Section (H-7-1)  
19 U.S. Environmental Protection Agency, Region IX  
20 75 Hawthorne St.  
21 San Francisco, CA 94105

22 Assistant Regional Counsel - OII Site  
23 Office of Regional Counsel (RC-3)  
24 U.S. Environmental Protection Agency, Region IX  
25 75 Hawthorne St.  
26 San Francisco, CA 94105

27 As to the Work Defendants:

28 Project Co-Chairmen  
c/o Boone & Associates  
Suite 204  
901 Corporate Center Drive  
Monterey Park, CA 91754

David A. Giannotti, Esq.  
Kaye, Scholer, Fierman, Hays & Handler  
1999 Avenue of the Stars, Suite 1600  
Los Angeles, CA 90067

1                   As to the State:

2                   Department of Toxic Substances Control  
3                   Attention: OII Project Coordinator  
4                   Toxic Substances Control Program  
5                   1405 San Fernando Road, Suite 300  
6                   Burbank, CA 91504

7                   As to Work Defendants under the First Decree:

8                   OII Project Coordinator  
9                   CURE, Inc.  
10                  2500 Greenwood Avenue  
11                  Monterey Park, CA 91754

12                  **XXVIII.       MODIFICATION**

13                  A.    Except as otherwise provided in this Decree, no  
14                  modification shall be made to this Consent Decree without written  
15                  notification to and written approval of all of the Parties to  
16                  this Consent Decree and the Court. The notification required by  
17                  this Section shall set forth the nature of and reasons for the  
18                  requested modification. No oral modification of this Consent  
19                  Decree shall be effective. Nothing in this Section shall be  
20                  deemed to alter the Court's power to supervise or approve  
21                  modifications to this Consent Decree or to limit EPA's authority  
22                  to modify the Gas ROD in accordance with CERCLA and the NCP.

23                  B.    Notwithstanding the above, the parties may make  
24                  modifications to the SOW pursuant to the SOW.

25                  **XXIX.       ADMISSIBILITY OF DATA**

26                  A.    For the purpose of this action only, the Parties waive  
27                  any evidentiary objection as to the authenticity of data  
28                  gathered, generated, or evaluated by any Party in the performance  
29                  or oversight of the Work under this Decree that have been

1 verified using the Quality Assurance and Quality Control  
2 procedures specified in Section XII (Quality Assurance/Quality  
3 Control, page 36).

4 B. For the purpose of this action only, the Parties also  
5 waive any objections to the introduction of such data based on  
6 hearsay.

7  
8 **XXX. CONTRIBUTION PROTECTION**

9 A. With regard to claims for contribution against  
10 Defendants for matters addressed in this Consent Decree, the  
11 Parties agree that the Defendants are entitled, as of the  
12 effective date of this Consent Decree, to such protection from  
13 contribution, actions or claims as provided in Section 113(f)(2)  
14 of CERCLA, 42 U.S.C. § 9613(f)(2) and applicable state law.  
15 Nothing in this Section shall constitute or be construed as  
16 releasing or providing any Covenant Not to Sue or Contribution  
17 Protection with respect to any matter addressed by this Decree to  
18 any person or entity not a Defendant or to any Defendant which  
19 has defaulted on its obligations under this Decree. Nothing in  
20 this Section shall be deemed to waive any other right to  
21 contribution protection that the Defendants may have.

22 B. Each Cash Defendant's right to contribution protection  
23 under this Section shall remain in effect against all other  
24 persons provided it has not defaulted on any obligation under  
25 this Decree, whether or not any other Defendant has fully  
26 performed its obligations under this Decree. Each Work  
27 Defendant's right to contribution protection under this Section  
28 shall remain in effect against all other persons provided Work



1 Defendants have not defaulted on any obligation under this Decree  
2 and that such Work Defendant has not defaulted on its obligations  
3 arising out of this Decree, whether or not any or all Cash  
4 Defendants has fully performed its obligations under this Decree.  
5

6 **XXXI. DEFENDANTS' RIGHT OF CONTRIBUTION AND INDEMNITY**  
7 **AND COVENANT NOT TO SUE EACH OTHER**

8 A. Each Defendant shall retain all rights under statutory  
9 or common law to seek contribution or indemnification against any  
10 and all other persons or entities not party to this Decree.

11 B. Except as provided in this paragraph, to the extent  
12 that any Defendant has complied with its obligations hereunder,  
13 and, as among the Work Defendants only, with its obligations  
14 under any separate agreement allocating the costs hereof, no  
15 rights as to matters addressed in this Decree are retained  
16 against such Defendant by any other Defendant and such rights are  
17 hereby expressly waived, released and discharged with regard to  
18 such Defendant. Each Cash Defendant specifically retains any and  
19 all rights to seek indemnification from the Work Defendants as  
20 provided in paragraph XX.D (page 63) of Section XX  
21 (Indemnification and Insurance).

22 C. For and in consideration of the mutual covenants and  
23 promises of the Defendants made herein and, as to the Work  
24 Defendants only, in any separate agreement allocating the costs  
25 hereof, each Defendant hereby covenants not to sue or otherwise  
26 assert any claim against any other Defendant for reimbursement of  
27 any payment made pursuant to this Decree, except to enforce any  
28 allocation of costs made pursuant to such agreement.

1 D. Nothing in this Consent Decree shall affect in any way  
2 any rights or obligations by and among the Defendants under the  
3 First Decree and the Second Decree.  
4

5 **XXXII. WAIVER OF CLAIM-SPLITTING DEFENSE**

6 All Parties recognize and acknowledge that the settlement  
7 embodied in this Consent Decree is only a partial resolution of  
8 issues related to the remediation of conditions at the Site.  
9 Defendants hereby waive the defenses of res judicata, collateral  
10 estoppel, and claim-splitting by the Plaintiff, only with respect  
11 to the Plaintiff's right to pursue subsequent litigation regard-  
12 ing Defendants' responsibility for phases of Site work and costs  
13 not covered by this Consent Decree.  
14

15 **XXXIII. COMMUNITY RELATIONS**

16 The Work Defendants shall cooperate with EPA and the State  
17 in providing information to the public. As requested by EPA or  
18 the State, the Work Defendants shall participate in the  
19 preparation of all appropriate information disseminated to the  
20 public and in public meeting(s) which may be held or sponsored by  
21 EPA or the State to explain activities at or concerning the Site  
22 relative to the Work required under the terms of this Decree. As  
23 appropriate, EPA or the State may seek consultation with and  
24 assistance from Work Defendants in the preparation of information  
25 disseminated to the public and in public meeting(s) which may be  
26 held or sponsored by EPA or the State to explain activities at or  
27 concerning the Site.  
28

1           **XXXIV.        LODGING AND PUBLIC PARTICIPATION**

2           A.    As required by Section 122(d)(2) of CERCLA, 42 U.S.C.  
3 § 9622(d)(2) and 28 C.F.R. § 50.7, this Consent Decree will be  
4 lodged with the Court. The United States shall publish a notice  
5 of availability of review to allow public comment prior to entry  
6 by the Court.

7           B.    The United States will provide persons who are not  
8 Parties to the proposed settlement with the opportunity to file  
9 written comments during a thirty (30) day period following such  
10 notice. The United States will file with the Court a copy of any  
11 comments received and its responses to such comments.

12           C.    The United States reserves the right to withdraw or  
13 withhold its consent if the comments regarding the Consent Decree  
14 disclose facts or considerations which indicate that the Consent  
15 Decree is inappropriate, improper or inadequate, and therefore  
16 that the Consent Decree should be modified as required by Section  
17 122(d)(2) of CERCLA, 42 U.S.C. § 9622(d)(2) and 28 C.F.R. § 50.7.  
18 If a modification is deemed necessary by the United States based  
19 on public comments, the United States will notify Defendants.

20           D.    No Party shall be bound by modifications to this Decree  
21 without its prior written consent, and consent to this Decree is  
22 not consent to such modifications.

23  
24           **XXXV.        STATE AND LOCAL AGENCY PARTICIPATION**

25           A.    Lead Agency

26           EPA is and shall be the lead agency, as defined in the NCP,  
27 for the activities within the scope of this Decree.

1       B.    Interagency Committee

2       The Operating Industries Interagency Committee ("IAC") con-  
3       sists of interested State and local agencies. The IAC meets on a  
4       regular basis to exchange information on agency regulatory ac-  
5       tivities at the Operating Industries Site and reviews and com-  
6       ments on remedial and response actions undertaken at the Site.

7       C.    Role of Interagency Committee

8       The Work Defendants shall make available copies of all  
9       significant deliverables developed pursuant to this Decree as  
10      designated by EPA to the members of the IAC for review. EPA will  
11      provide Work Defendants a current mailing list for IAC members  
12      prior to the effective date of this Decree. Technical  
13      representatives of Work Defendants, EPA and the IAC shall be  
14      given the opportunity to review the deliverables. After the IAC  
15      has had the opportunity to review the deliverables, it shall have  
16      the opportunity to meet with EPA to discuss the deliverables and  
17      prepare collaborative comments. These collaborative comments  
18      shall be submitted to the Work Defendants as EPA comments. The  
19      Work Defendants shall respond to the EPA comments as is required  
20      by the terms of Section VII (Work to be Performed, page 17) and  
21      subject to Work Defendants' right under Section XXII (Dispute  
22      Resolution, page 69) of this Consent Decree.

23      D.    Consultation with State

24      EPA will consult with the State before approving any  
25      significant deliverables required to be submitted by the Work  
26      Defendants under this Decree. EPA will also consult with the  
27      State before determining whether a force majeure event beyond the  
28      control of the Work Defendants has occurred, and whether the Work

1 Defendants have substantially complied with or completed the  
2 terms of this Decree. EPA's failure to consult with the State  
3 will not relieve the Work Defendants of any obligation to comply  
4 with the requirements of this Decree. If it is not practicable  
5 for EPA to consult with the State, EPA shall notify the State of  
6 its approval or determination. The State's failure to object in  
7 a timely manner to any approval, determination or other decision  
8 of EPA made under this Decree shall constitute concurrence with  
9 EPA.

10  
11 **XXXVI. NOTICE TO THE STATE**

12 EPA has notified the State of California pursuant to the re-  
13 quirements of Section 106(a) and 121(f)(1)(F) of CERCLA, 42  
14 U.S.C. §§ 9606(a) and 9621(f)(1)(F), and EPA has provided the  
15 State with an opportunity to participate in negotiations and be a  
16 party to this settlement.

17  
18 **XXXVII. OTHER CLAIMS**

19 Nothing in this Consent Decree shall be deemed to constitute  
20 a preauthorization of a CERCLA claim within the meaning of Sec-  
21 tions 111 or 112 of CERCLA or 40 C.F.R. § 300.25(d). In con-  
22 sideration of the entry of this Consent Decree, Defendants agree  
23 not to make any claims pursuant to Sections 111, 112 or 106(b)(2)  
24 of CERCLA, 42 U.S.C. §§ 9611, 9612, 9606(b)(2), or any other  
25 provision of law directly or indirectly against the Hazardous  
26 Substance Superfund, or make other claims against the United  
27 States or the State for those costs expended in connection with  
28 this Consent Decree.

1       **XXXVIII.       CONTINUING JURISDICTION**

2           The Court specifically retains jurisdiction over both the  
3 subject matter of and the Parties to this action for the duration  
4 of this Consent Decree for the purposes of issuing such further  
5 orders or directions as may be necessary or appropriate to con-  
6 strue, implement, modify, enforce, terminate, or reinstate the  
7 terms of this Consent Decree or for any further relief as the in-  
8 terest of justice may require.

9  
10       **XXXIX.       REPRESENTATIVE AUTHORITY**

11           A.   Each undersigned representative of the Parties to this  
12 Consent Decree certifies that he or she is fully authorized by  
13 the Party to enter into and execute the terms and conditions of  
14 this Consent Decree, and to legally bind such Party to this  
15 Consent Decree.

16           B.   Defendants shall identify, on the attached signature  
17 page, the name and address of an agent who is authorized to ac-  
18 cept service of process by mail on behalf of that Defendant with  
19 respect to all matters arising under or relating to this Consent  
20 Decree.

21           C.   Notwithstanding the agents identified by Defendants  
22 pursuant to the preceding paragraph XXXIX.B, Work Defendants  
23 agree to accept service through their common counsel, in lieu of  
24 individualized service of any pleading pertaining to this Consent  
25 Decree on any other person:

26                   David A. Giannotti, Esq.  
27                   Kaye, Scholer, Fierman, Hays & Handler  
28                   1999 Avenue of the Stars, Suite 1600  
                    Los Angeles, CA 90067

1 D. Defendants hereby agree to accept service in the manner  
2 set forth in this Section and to waive the formal service  
3 requirements set forth in Rule 4 of the Federal Rules of Civil  
4 Procedure, including service of a summons, and any applicable  
5 local rules of this Court.

6  
7 **XL. EFFECTIVE DATE**

8 This Consent Decree is effective upon the date of its entry  
9 by the Court.

10  
11 **XLI. SEVERABILITY**

12 If any provision or authority of this Consent Decree or the  
13 application of this Consent Decree to any circumstance is held by  
14 the Court to be invalid, the application of such provision to  
15 other circumstances and the remainder of the Consent Decree shall  
16 remain in force and shall not be affected thereby.

17  
18 **XLII. TERMINATION AND SATISFACTION**

19 A. 1. Upon completion of the Work to be performed  
20 pursuant to this Decree, Work Defendants shall submit to EPA and  
21 the State the Work Completion Report, which shall state that the  
22 Work has been completed in accordance and in full compliance with  
23 this Decree or that they have otherwise satisfied their  
24 obligations in accordance and in full compliance with this  
25 Decree. Within sixty (60) days of receipt of the Work Completion  
26 Report, EPA shall approve or disapprove the Work Completion  
27 Report subject to the provisions of Section XXXV (State and Local  
28 Agency Participation, page 103). If the Work Completion Report

1 is disapproved, EPA may invoke the provisions of Section IX  
2 (Additional Work, page 34) and paragraph VII.C.6 (on page 28) of  
3 Section VII (Work To Be Performed). Upon approval of the Work  
4 Completion Report, Work Defendants' obligations for the Work  
5 shall be deemed to be satisfied.

6           2. If Work Defendants perform an item of the Excluded  
7 Work or any portion thereof, Work Defendants shall submit to EPA  
8 an Excluded Work Completion Report for each item performed that  
9 shall state that the Excluded Work has been completed in  
10 accordance and in full compliance with this Decree. Within sixty  
11 (60) days of receipt of the Excluded Work Completion Report, EPA  
12 shall approve or disapprove the Report subject to the provisions  
13 of Section XXXV (State and Local Agency Participation, page 103).  
14 Upon approval of an Excluded Work Completion Report, Work  
15 Defendants' obligation for that portion of Excluded Work shall be  
16 deemed to be satisfied.

17           3. This Decree shall not terminate until EPA approval  
18 of the completion of the Work and Excluded Work and EPA's  
19 notification to the Work Defendants that both the Work and  
20 Excluded Work have been satisfactorily completed. Upon such  
21 notification by EPA, this Decree shall be terminated as to the  
22 Work Defendants except for the provisions of Section XVI  
23 (Retention of Records, page 48), Section XXIV (Covenants Not to  
24 Sue, page 83), Section XXVI (Reservation of Rights, page 93),  
25 Section XXX (Contribution Protection, page 100), the completion  
26 of any periodic review being conducted pursuant to paragraph X.A  
27 (on page 35) of Section X (Periodic Review), and such other  
28 continuing rights and obligations of the Work Defendants under



1 this Decree.

2 B. Upon full payment of all its obligations under Section  
3 XVII (Reimbursement of Response Costs, page 51) and Exhibit C,  
4 each Cash Defendant shall have satisfied its obligations for  
5 matters addressed under this Decree, and this Decree shall be  
6 terminated as to that Cash Defendant, except for the provisions  
7 of Section XVI (Retention of Records, page 48), Section XXVI  
8 (Reservation of Rights, page 93), Section XXX (Contribution  
9 Protection, page 100), Section XXIV (Covenants Not to Sue, page  
10 83) and such other continuing rights and obligations of that Cash  
11 Defendant under this Decree.

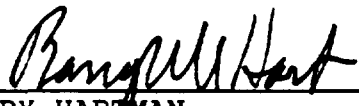
12  
13 **XLIII. SECTION HEADINGS**

14 The section headings set forth in this Consent Decree and  
15 its Table of Contents are included for convenience of reference  
16 only and shall be disregarded in the construction and interpreta-  
17 tion of any of the provisions of this Consent Decree.

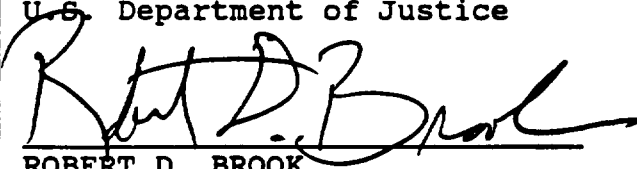
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19 **XLIV. COUNTERPARTS**

20 This Consent Decree may be executed and delivered in any  
21 number of counterparts, each of which when executed and delivered  
22 shall be deemed to be an original, but such counterparts shall  
23 together constitute one and the same document.

1 FOR PLAINTIFF UNITED STATES OF AMERICA:

2  
3   
4 BARRY HARTMAN  
5 Acting Assistant Attorney General  
6 Environment and Natural Resources Division  
7 U.S. Department of Justice

Dated: \_\_\_\_\_

8   
9 ROBERT D. BROOK  
10 Environmental Enforcement Section  
11 Environment and Natural Resources Division  
12 P.O. Box 7611, Ben Franklin Station  
13 U.S. Department of Justice  
14 Washington, D.C. 20044

Dated: 10/28/91

15 LOURDES G. BAIRD  
16 United States Attorney

17 SCOTT PARK  
18 Assistant United States Attorney  
19 Central District of California  
20 1100 U.S. Courthouse  
21 312 North Spring Street  
22 Los Angeles, CA 90012

Dated: \_\_\_\_\_

1 FOR PLAINTIFF UNITED STATES OF AMERICA

2  
3 *Daniel W. McGovern*

Dated: 9.27.91

4 DANIEL W. MCGOVERN  
5 Regional Administrator  
6 U.S. EPA Region IX  
75 Hawthorne Street  
San Francisco, California 94105

8  
9 *Katherine L. Shine*

Dated: September 25, 1991

10 KATHERINE L. SHINE  
11 Assistant Regional Counsel  
12 U.S. EPA Region IX  
75 Hawthorne Street  
San Francisco, California 94105

1 FOR PLAINTIFF STATE OF CALIFORNIA:  
2  
3

4 *William F. Soo Hoo*  
5 WILLIAM F. SOO HOO  
6 Acting Director  
7 Department of Toxic Substances Control  
8 400 P Street, 4th Floor  
9 Sacramento, California 95814  
10

Dated: Nov 18, 1991

11 *Dennis A. Ragen*  
12 DENNIS A. RAGEN  
13 Deputy Attorney General  
14 110 West "A" Street  
15 Suite 700  
16 San Diego, California 92101  
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Dated: Nov. 19, 1991

Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: ALCOA COMPOSITES, INC., on  
6 behalf of Westlock Division

7 DATED: \_\_\_\_\_

8  
9 BY: Name L.B. James

10  
11 Signature  \_\_\_\_\_

12  
13 Title President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Allied-Signal, Inc. for Garrett  
Airesearch and Bendix

6  
7 DATED: September 9, 1991

8  
9 BY: Name William F. Grun

10  
11 Signature 

12  
13 Title President

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Third Partial Consent Decree

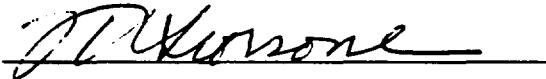
1 The undersigned defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating  
Industries, Inc. site.

3 FOR DEFENDANT: ALUMINUM COMPANY OF AMERICA

4  
5 DATED: September 12, 1991

6 BY: Name V.R. Scorsone

7  
8 Signature



9 Title Executive Vice President

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27 Third Partial Consent Decree  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: AMERICAN AIRLINES, INC.

6  
7 DATED: August 27, 1991

8  
9 BY: Name CHARLES D. MARLETT

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11 Signature 

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13 Title Corporate Secretary

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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: AMERICAN NATIONAL CAN

6  
7 DATED: September 18, 1991

8  
9 BY: Name H. Arvid Johnson

10  
11 Signature 

12  
13 Title Senior Vice President and General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Amtrak - National Railroad  
6 Passenger Corporation

7 DATED: 8-15-91

8  
9 BY: Name Robert T. Noonan

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11 Signature



12  
13 Title

Senior Director - Environmental  
Control/Industrial Hygiene

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Anchorlok Corp.

6  
7 DATED: September 17, 1991

8  
9 BY: Name James F. Matthews

10  
11 Signature *James F. Matthews*

12  
13 Title Vice President & Associate General Counsel

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Aratex Services, Inc. for and  
6 doing business as Red Star  
Industrial Service

7 DATED: September 20, 1991

8  
9 BY: Name Bruce Lafferman

10  
11 Signature 

12  
13 Title Vice President,  
14 Aratex Services, Inc.

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT:       ARMCO INC.  
6

7       DATED:               September 6, 1991  
8

9       BY:   Name           Robert W. Kent  
10

11       Signature       *Robert W. Kent*  
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13       Title           Corporate Vice President  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: Armstrong World Industries, Inc.  
6

7 DATED: August 30, 1991  
8

9 BY: Name Dennis M. Draeger  
10

11 Signature   
12

13 Title Group Vice-President  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: ATLANTIC RICHFIELD COMPANY

6  
7 DATED: September 10, 1991

8  
9 BY: Name William D. Leake

10  
11 Signature



12  
13 Title

Vice President - Environment, Health & Safety

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Third Partial Consent Decree

**SIGNATURE PAGE**

**FOR SUBSIDIARIES AND AFFILIATED ENTITIES**

The undersigned Defendant, for and on behalf of the subsidiary(ies) and affiliated entity(ies) named below, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANT: Atochem North America, Inc.

FOR SUBSIDIARY(IES)/AFFILIATED ENTITY(IES):

M & T Metals

M & T Plating

M & T Chemicals

Pennwalt

DATED: November 7, 1991

BY: Name Douglas L. Cox

Signature 

Title Sr. Vice President - Finance



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: BASF CORPORATION for and on behalf of  
INMONT INK

6  
7 DATED: September 20, 1991

8  
9 BY: Name Douglas E. Martin

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11 Signature 

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13 Title Attorney

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: F & C Plating Co.

6 Tommye Carter

7 DATED: September 23, 1991

8

9 BY: Name SCOTT E. WOOD

10

11 Signature Scott E Wood

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13 Title Attorney

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Third Partial Consent Decree

**SIGNATURE PAGE**

**FOR B.J. SERVICES**

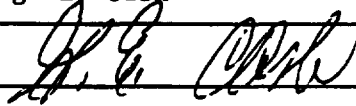
**AND B.J. HUGHES**

The undersigned Defendant, for and on behalf of B.J.  
Services, <sup>COMPANY</sup> Inc. and B.J. Hughes, hereby consents to the foregoing  
Third Partial Consent Decree concerning the Operating Industries,  
Inc. site.

DEFENDANT: B.J. SERVICES, <sup>COMPANY</sup> INC. FOR ITSELF AND FOR B.J.  
HUGHES.

DATED: October 22, 1991

BY: Name George E. Cash

Signature 

Title Vice President

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: BEHR PROCESS CORPORATION

6  
7 DATED: AUGUST 19, 1991

8  
9 BY: Name JOHN V. CROUL

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11 Signature 

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13 Title PRESIDENT

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Berwin Railway Service Co.

6  
7 DATED: Sept. 23, 1991

8  
9 BY: Name Jerry M. Custis

10  
11 Signature Jerry M. Custis

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13 Title Attorney

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Bethlehem Steel Corporation

6  
7 DATED: September 12, 1991

8  
9 BY: Name John A. Jordan, Jr.

10  
11 Signature

John A. Jordan Jr.

12  
13 Title

Senior Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: BETZ LABORATORIES, INC.

6  
7 DATED: SEPTEMBER , 1991

8  
9 BY: Name WILLIAM C. BRAFFORD

10  
11 Signature William C. Brafford

12  
13 Title VICE PRESIDENT, SECRETARY  
14 and GENERAL COUNSEL

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: BIRD CORP. (BIRD AND SON INC.)

6  
7       DATED: September 12, 1991

8  
9       BY: Name William A. Krivsky

10  
11       Signature 

12  
13       Title Executive Vice President, CFO



1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4                               Black & Decker Corporation  
5                               on Behalf of McCulloch Corporation  
6       FOR DEFENDANT: \_\_\_\_\_

7                               September 10, 1991  
8       DATED: \_\_\_\_\_

9       BY:   Name               Charles E. Fenton  
10                               \_\_\_\_\_

11       Signature Charles E. Fenton  
12                               \_\_\_\_\_

13       Title               Vice President  
14                               \_\_\_\_\_

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries  
3 Inc. site.  
4

5       FOR DEFENDANT: BLACKTOP MATERIALS COMPANY

6  
7       DATED: August 21<sup>st</sup>, 1991

8  
9       BY: Name KENNETH L. SIPE

10  
11       Signature Kenneth L. Sipe

12  
13       Title PRESIDENT

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1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Borden, Inc.

6  
7       DATED: September 9, 1991

8  
9       BY: Name Joseph M. Saggese

10  
11       Signature  *MSH*

12  
13       Title Executive Vice President

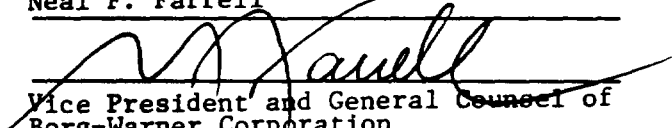
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Third Partial Consent Decree

**SIGNATURE PAGE**  
**FOR BORG-WARNER CORPORATION**  
**AND BYRON JACKSON PUMP DIVISION**

The undersigned Defendant, for and on behalf of itself and  
Byron Jackson Pump Division, hereby consents to the foregoing Third  
Partial Consent Decree concerning the Operating Industries, Inc.  
site.

DEFENDANT: Borg-Warner Corporation for itself and Byron  
Jackson Pump Division

DATED: 10/31/91

BY: Name Neal F. Farrell  
Signature   
Title Vice President and General Counsel of  
Borg-Warner Corporation

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: BRIDGESTONE/FIRESTONE, INC.

6  
7       DATED: AUGUST 26, 1991

8  
9       BY: Name M. ONO

10  
11       Signature 

12  
13       Title EXECUTIVE VICE PRESIDENT, MANUFACTURING & TECHNOLOGY

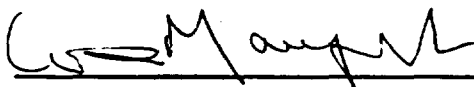
1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Calgon Corporation

6  
7 DATED: August 21, 1991

8  
9 BY: Name Walter R. Maupay, Jr.

10  
11 Signature



LEGAL  
APPROVAL  


12  
13 Title President, Calgon Vestal Laboratories

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: CALMAT CO.

6  
7 DATED: SEPTEMBER 19, 1991

8  
9 BY: Name PAUL STANFORD

10  
11 Signature 

12  
13 Title VICE PRESIDENT, GENERAL COUNSEL  
14 AND SECRETARY

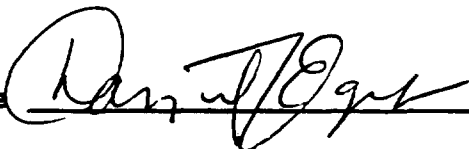
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Capitol Metals Co. Inc.

6  
7 DATED: 09/14/91

8  
9 BY: Name Daniel J. Eget

10  
11 Signature 

12  
13 Title CEO



1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: CARNATION COMPANY

6  
7       DATED: September 4, 1991

8  
9       BY: Name Merle W. Wood

10  
11       Signature 

12  
13       Title Senior Attorney

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Third Partial Consent Decree

**SIGNATURE PAGE**

**FOR CHAMPION INTERNATIONAL CORPORATION**

**AND ST. REGIS PAPER COMPANY**

The undersigned Defendant, for and on behalf of itself and St. Regis Paper Company, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANT: Champion International Corp. and St. Regis Paper Company

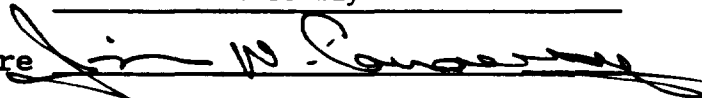
DATED:

10/17/91

BY: Name

James W. Carraway

Signature



Title

Director, Environmental Projects

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: CHEVRON USA, INC., CHEVRON CHEMICAL COMPANY  
AND CHEVRON PIPELINE COMPANY

6  
7 DATED: 12 SEPTEMBER 1991

8  
9 BY: Name J. N. STAMBOLIS

10  
11 Signature 

12  
13 Title MANAGER, SUPERFUND NEGOTIATIONS AND WASTE PROGRAMS  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: CHROME CRANKSHAFT CO., INC.  
6

7 DATED: 8/9/91  
8

9 BY: Name Harry Williamson  
10

11 Signature Harry Williamson  
12

13 Title President  
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**SIGNATURE PAGE**  
**FOR CHRYSLER CORPORATION**  
**AND NU CAR PREP SYSTEMS, INC.**

The undersigned, on behalf of Chrysler Corporation and NuCar Prep Systems, Incorporated, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANTS: Chrysler Corporation and Nu-Car Prep Systems, Inc.

DATED: October 31, 1991

BY: Name Lynn Y. Buhl

Signature *Lynn Y. Buhl*

Title Staff Counsel  
Chrysler Corporation

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Clougherty Packing Company

6  
7       DATED: September 20, 1991

8  
9       BY: Name Joseph D. Clougherty

10  
11       Signature Joseph D. Clougherty

12  
13       Title President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 COCA-COLA BOTTLING COMPANY OF LOS ANGELES

5 FOR DEFENDANT: \_\_\_\_\_

6  
7 DATED: \_\_\_\_\_

9/21/91

8  
9 BY: Name \_\_\_\_\_

THOMAS D. SHERMAN

10  
11 Signature \_\_\_\_\_

*Thomas D. Sherman*

12  
13 Title \_\_\_\_\_

*Vice President*

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT:

6 Coca-Cola USA, a division of  
7 The Coca-Cola Company

8 DATED: \_\_\_\_\_

9 BY: Name

William R. Buehler

10  
11 Signature

William R. Buehler *WRB*

12  
13 Title

Vice President

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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: Conoco Inc.  
6

7 DATED: September 10, 1991  
8

9 BY: Name Paul W. Lashbrooke

10  
11 Signature   
12

13 Title Vice President & General Manager,  
Refining North America  
14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Conopco, Inc.

6  
7 DATED: September 12, 1991

8  
9 BY: Name Walter M. Volpi

10  
11 Signature 

12  
13 Title Sr. Vice President and Assistant Secretary

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: CONTAINER CORPORATION OF AMERICA  
6

7 DATED: September 20, 1991  
8

9 BY: Name Karl K. Hoagland, Jr.  
10

11 Signature   
12

13 Title Vice President and General Counsel  
14 and Secretary  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: COOPER & BRAIN, INC.

6  
7 DATED: September 9, 1991

8  
9 BY: Name Joel A. Cooper

10  
11 Signature 

12  
13 Title 

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Cooper Drum Co.

6  
7 DATED: Aug 27, 1991

8  
9 BY: Name Arthur Cooper

10  
11 Signature 

12  
13 Title President

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

CROWLEY MARITIME CORPORATION ON BEHALF  
OF ITS WHOLLY OWNED SUBSIDIARIES CROWLEY  
TOWING AND TRANSPORTATION CO. AND CROWLEY  
ENVIRONMENTAL SERVICES CORPORATION

4  
5       FOR DEFENDANT: \_\_\_\_\_

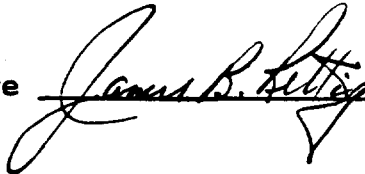
6  
7       DATED: \_\_\_\_\_

AUGUST 11, 1991

8  
9       BY: Name \_\_\_\_\_

JAMES B. RETTIG

10  
11       Signature \_\_\_\_\_



12  
13       Title \_\_\_\_\_

PRESIDENT, CHIEF OPERATING OFFICER

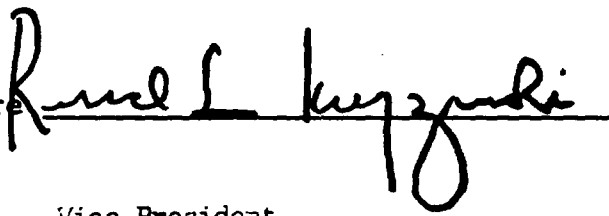
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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5       FOR DEFENDANT: Crown Beverage Packaging, Inc.  
6                               (formerly named Continental Beverage Packaging, Inc.  
                                  and sucessor to Continental Can Company, Inc.)

7       DATED:               September 16, 1991  
8

9       BY: Name           Richard L. Krzyzanowski

10  
11       Signature   
12

13       Title             Vice President  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 Crown Zellerbach by  
5 FOR DEFENDANT: Gaylord Container Corporation  
6 ~~Successor in interest for Baldwin Park~~  
Boulevard plant only

7 DATED: 9/19/91

8  
9 BY: Name David F. Tanaka

10  
11 Signature David F. Tanaka

12  
13 Title Secretary  
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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 CROWN ZELLERBACH  
5 FOR DEFENDANT: by JAMES RIVER II, INC.  
6 Successor-in-Interest with respect to  
7 DATED: Sheila Street and Garfield Avenue Plants  
only  
August 29, 1991

8  
9 BY: Name Charles Eberle

10  
11 Signature



12  
13 Title

Executive Vice President

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: DECALTA OIL COMPANY

6  
7 DATED: September 18, 1991

8  
9 BY: Name W.R. Stedman

10  
11 Signature 

12  
13 Title Vice-President & General Manager

14  
15 Name D.J. Watkinson

16  
17 Signature 

18  
19 Title Secretary & General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: DEFT, INC.

6  
7 DATED: 10 SEPT. 1991

8  
9 BY: Name W.A. DESMOND

10  
11 Signature W.A. Desmond

12  
13 Title President Deft Inc

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Third Partial Consent Decree

**SIGNATURE PAGE**

**FOR DELTA AIR LINES, INC.**

**AND WESTERN AIRLINES**

The undersigned Defendant, for and on behalf of itself and Western Airlines, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANT: Delta Air Lines, Inc. for itself and Western Airlines

DATED: October 28, 1991

BY: Name Robert E. Cowart

Signature

Title

Vice President - Technical Services

ORIGINAL

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: DEPARTMENT OF WATER AND POWER OF THE  
6 CITY OF LOS ANGELES

7 DATED: 9-4-91

8  
9 BY: Name Eldon A. Cotton

10  
11 Signature Eldon A. Cotton

12  
13 Title Assistant General Manager - Power

14  
15  
16  
17 APPROVED AS TO FORM AND LEGALITY  
18 JAMES K. HAHN CITY ATTORNEY

19 AUG 14 1991  
20 b. Roberta Scharlin Zinman  
21 ROBERTA SCHARLIN ZINMAN  
22 Deputy City Attorney  
23  
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Third Partial Consent Decree


AUTHORIZED BY RES. 92 (93)  
AUG 20 1991

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: DEUTSCH COMPANY

6  
7       DATED: AUGUST 12, 1991

8  
9       BY: Name HENRY S. ROSE

10  
11       Signature 

12  
13       Title CHIEF LEGAL COUNSEL

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Douglas Oil Co.

6  
7 DATED: September 10, 1991

8  
9 BY: Name Robert B. Merchant

10  
11 Signature 

12  
13 Title President

14  
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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4                       Dresser Industries, Inc.  
5       FOR DEFENDANT:   (Magcobar and Pacific Pumps)  
6                       \_\_\_\_\_

7       DATED:               September 20, 1991  
8                       \_\_\_\_\_

9       BY:   Name               V. Rock Grundman  
10                      \_\_\_\_\_

11       Signature   *V. Rock Grundman*  
12                      \_\_\_\_\_

13       Title               Government/Business Affairs Counsel  
14                      \_\_\_\_\_

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Third Partial Consent Decree



1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: DUNN-EDWARDS CORPORATION

6  
7       DATED: September 11, 1991

8  
9       BY: Name ROBERT E. MITCHELL

10  
11       Signature 

12  
13       Title CHAIRMAN OF THE BOARD

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Emerson & Cuming, Inc.

6  
7 DATED: 9/10/91

8  
9 BY: Name Charles H. Ehlers

10  
11 Signature Charles H. Ehlers

12  
13 Title Chairman and President

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Exxon Corporation

6  
7 DATED: September 13, 1991

8  
9 BY: Name Charles G. Lyons

10  
11 Signature 

12  
13 Title Division Manager

*T.M.A.  
T.M.W.*

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: Federal Express Corporation  
6

7 DATED: September 12, 1991  
8

9 BY: Name A. Doyle Cloud, Jr.  
10

11 Signature   
12

13 Title Vice President Regulatory and Government Affairs  
14  
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Third Partial Consent Decree

**SIGNATURE PAGE**  
**FOR FERRO CORPORATION**

The undersigned Defendant, Ferro Corporation, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

**DEFENDANT:** Ferro Corporation

**DATED:** 10/22/91

**BY: Name** R. J. Finch

**Signature** R. J. Finch

**Title** Vice President, Specialty Plastics

**SIGNATURE PAGE**

**FOR FERRO CORPORATION**

**AND PRODUCTOL CHEMICAL DIVISION**

The undersigned Defendant, for and on behalf of itself and Productol Chemical Division, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANT: Ferro Corporation, for itself and Productol Chemical Division.

DATED: 10/22/91

BY: Name Frank A. Carragher

Signature Frank A. Carragher

Title Senior Vice President, Chemicals & Polymers

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Fibre board Corporation

6  
7       DATED: 9/3/91

8  
9       BY: Name Michael R. Douglas

10  
11       Signature Michael R. Douglas

12  
13       Title Vice President & General Counsel

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Flint Ink Corporation

6  
7       DATED: September 9, 1991

8  
9       BY: Name Thomas W. Clarke

10  
11       Signature 

12  
13       Title - Vice President Finance & Treasurer

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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: The Flintkote Company

6  
7 DATED: September 13, 1991

8  
9 BY: Name Linda N. Cunningham

10  
11 Signature



12  
13 Title

Assistant Secretary

14  
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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Ford Motor Company

6  
7       DATED: August 28, 1991

8  
9       BY: Name J. A. Courter

10  
11       Signature J. A. Courter

12  
13       Title Secretary

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5       FOR DEFENDANT: Freeport-McMoRan Oil & Gas Company  
6                           Division of Freeport-McMoRan Inc.,  
                          Successor by mergers to Petro-Lewis Corporation

7       DATED:           August 30, 1991  
8

9       BY:   Name       Charles E. Holmes  
10

11       Signature    
12

13       Title       Vice President  
14  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: GATX TERMINALS CORPORATION

6  
7 DATED: SEPTEMBER 06, 1991

8  
9 BY: Name DAVID E. WRIGHT

10  
11 Signature 

12  
13 Title Vice President/General Manager  
14 Los Angeles Petroleum Complex  
15 Business Unit

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: General Electric Company

6  
7       DATED: September 4, 1991

8  
9       BY: Name Lloyd Trotter

10  
11       Signature Lloyd Trotter

12  
13       Title V.P. & G.M. - Manufacturing

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5       FOR DEFENDANT: General Latex and Chemical Corporation  
6

7       DATED: September 23, 1991  
8

9       BY: Name William H. Jefferson  
10

11       Signature *William H. Jefferson*  
12

13       Title President  
14  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: General Motors Corporation

6  
7 DATED: September 11, 1991

8  
9 BY: Name Don A. Schiemann

10  
11 Signature Don A. Schiemann

12  
13 Title Attorney

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Georgia-Pacific Corporation

6  
7 DATED: 9-12-91

8  
9 BY: Name Douglas P. Roberto

10  
11 Signature 

12  
13 Title Senior Counsel

14  
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Third Partial Consent Decree



F- OPERATING IND.

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: GOLD INC.

6  
7 DATED: 13 September 1991

8  
9 BY: Name MICHAEL C. VEYSEY

10  
11 Signature Michael C. Veysey

12  
13 Title VP-General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

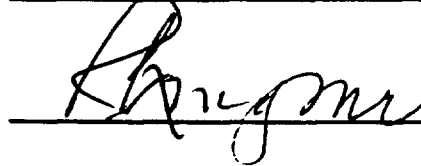
4  
5 FOR DEFENDANT: GRANT Oil Tool Company  
6 (A Masco Industries Co., dba Masx Energy Services Group, Inc.)

7 DATED: 8/20/91 X

8  
9 BY: Name

Richard C. LANGNER

10  
11 Signature

 X

12  
13 Title

Manager - Human Resources & Administration

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 Grow Group Inc. on behalf of  
5 Ameritone Paint Corporation and  
6 Trewax Division  
7 FOR DEFENDANT: \_\_\_\_\_

8  
9 DATED: August 23, 1991  
10 \_\_\_\_\_

11 BY: Name Lloyd Frank  
12 \_\_\_\_\_

13 Signature \_\_\_\_\_  
14 \_\_\_\_\_

15 Title Secretary  
16 \_\_\_\_\_  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: H & L Tooth Company  
6 For Precision Heat Treating Company  
and Hi-Production Forge Company

7 DATED: September 09, 1991

8  
9 BY: Name R. L. Launder

10  
11 Signature *R. L. Launder*

12  
13 Title Chairman and CEO

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Hellman Properties

6  
7 DATED: AUGUST 13, 1991

8  
9 BY: Name John G. Sherwood

10  
11 Signature John G. Sherwood

12  
13 Title General Partner

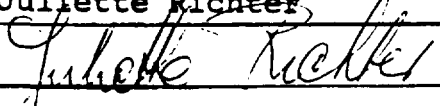
**SIGNATURE PAGE**

**FOR HENKEL CORPORATION AND EMERY CHEMICALS DIVISION**

The undersigned Defendant, for and on behalf of itself and Emery Chemicals Division, hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANT: Henkel Corporation, for itself and for Emery Chemicals Division

DATED: October 28, 1991

BY: Name Juliette Richter  
Signature   
Title Associate General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: THE HERTZ CORPORATION

6  
7 DATED: August 8, 1991

8  
9 BY: Name Paul M. Tschirhart

10  
11 Signature 

12  
13 Title Senior Vice President,  
General Counsel

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Third Partial Consent Decree

1 The undersigned Defendant heraby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Hollytex Carpet Mills/USG Corporation

6  
7 DATED: September 23, 1991

8  
9 BY: Name Christopher J. McElroy

10  
11 Signature 

12  
13 Title Senior Corporate Counsel  
14 USG Corporation  
15 101 S. Wacker Drive  
16 Chicago, Illinois 60606

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Third Partial Consent Decree



1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Hughes Aircraft Company

6  
7       DATED: September 03, 1991

8  
9       BY: Name J.R. Albin

10  
11       Signature 

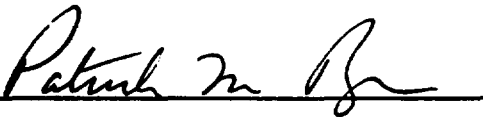
12  
13       Title Vice President, Product Operations

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: HUNT-WESSON, INC.

6  
7 DATED: August 28, 1991

8  
9 BY: Name Patrick M. Ryan

10  
11 Signature  *all*

12  
13 Title Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: HYDRIL COMPANY

6  
7 DATED: August 26, 1991

8  
9 BY: Name John F. Hill

10  
11 Signature 

12  
13 Title Vice President

SIGNATURE PAGE  
FOR INGERSOLL-RAND COMPANY  
AND PROTO TOOL COMPANY, INC.

The undersigned Defendant, for and on behalf of itself and Proto Tool Company, Inc. hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc. site.

DEFENDANT: Ingersoll-Rand Company, for itself and  
Proto Tool Company, Inc.

DATED: November 15, 1991

BY: Name Patricia Nachtigal

Signature 

Title V.P. & General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Inland Container Corporation

6  
7 DATED: September 11, 1991

8  
9 BY: Name Steven L. Householder

10  
11 Signature Steven L. Householder

12  
13 Title Vice President & General Counsel

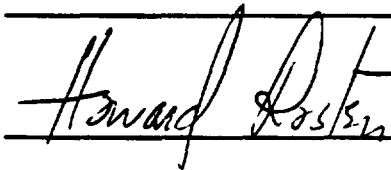
1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: CITY OF INGLEWOOD

6  
7 DATED: September 9, 1991

8  
9 BY: Name HOWARD ROSTEN

10  
11 Signature



12  
13 Title

CITY ATTORNEY

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: INTERNATIONAL EXTRUSION CORPORATION

6  
7 DATED: August 29, 1991

8  
9 BY: Name John P. Cunningham

10  
11 Signature 

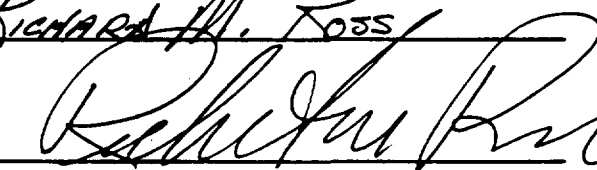
12  
13 Title President

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: International Paper Company

6  
7 DATED: September 19, 1991

8  
9 BY: Name Richard M. Ross

10  
11 Signature 

12  
13 Title G.M. Div. Ford Container Co.



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: INTERSTATE BRANDS CORPORATION

6  
7 DATED: 8/29/91

8  
9 BY: Name R. Sandy Sutton

10  
11 Signature 

12  
13 Title Vice President  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: KENOSHA AUTO TRANSPORT CORPORATION

6  
7 DATED: September 12, 1991

8  
9 BY: Name Dennis M. Troha

10  
11 Signature 

12  
13 Title Vice-Chairman

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

KERN FOODS, INC.  
SHAREHOLDERS' LIQUIDATING TRUST

4  
5 FOR DEFENDANT: \_\_\_\_\_

6  
7 DATED: 9/11/91

8  
9 BY: Name JAY KERN

10  
11 Signature   
12 TRUSTEE

13 Title \_\_\_\_\_  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Key sor Lemkey Corp.

6  
7 DATED: 9/8/91

8  
9 BY: Name HOWARD L. HILL

10  
11 Signature Howard Hill

12  
13 Title President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Latchford Glass Company

6  
7 DATED: September 5, 1991

8  
9 BY: Name Richard T. Dawson

10  
11 Signature 

12  
13 Title Vice-President

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: LIBERTY VEGETABLE OIL COMPANY

6  
7       DATED: September 13, 1991

8  
9       BY: Name Irwin S. Field

10  
11       Signature 

12  
13       Title PRESIDENT - CEO

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Lockheed Corporation, for itself  
6                           and its Lockheed Aeronautical  
7                           Systems Company Division

8  
9       DATED:           September 13, 1991

10  
11       BY: Name       E. A. Thompson

12  
13       Signature *E. A. Thompson*

14  
15       Title       Vice President-Operations  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Long Beach Oil Development Company\*

6  
7 DATED: 19 September 1991

8  
9 BY: Name Lee Ross

10  
11 Signature Lee Ross

*by Joseph Grigg, CFO*

12  
13 Title President

14  
15 \* individually, and on behalf of Phillips Petroleum Company,  
16 Chevron U.S.A. Inc., Exxon Corporation, Conoco Inc., and  
17 American Energy Operations, Inc., with respect to Long  
18 Beach Oil Development Company's Wilmington Oil Field  
19 operations.  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 Long Beach Unit, Wilmington Oil Field, California  
5 FOR DEFENDANT: (City of Long Beach, Unit Operator: Thums Long Beach  
6 Company, Agent for Field Contractor)

7 DATED: August 28, 1991

8  
9 BY: Name Frank M. Brown

10  
11 Signature Frank M. Brown

12  
13 Title President/General Manager  
14 Thums Long Beach Company

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: LONGVIEW FIBRE Co.

6  
7       DATED: 8-28-91

8  
9       BY: Name R. P. Wollenberg

10  
11       Signature ~~PRES.~~ R. P. Wollenberg

12  
13       Title PRES

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: CITY OF LOS ANGELES

6  
7 DATED: August 29, 1991

8  
9 BY: Name FELICIA MARCUS

10  
11 Signature 

12  
13 Title President, Board of Public Works

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4

5 FOR DEFENDANT: Los Angeles Times/Times Mirror Press

6

7 DATED: September 10, 1991

8

9 BY: The Times Mirror Company Times Mirror Press  
10 Los Angeles Times Division

11

12

13 Name: William A. Niese

William A. Niese

14

15 Signature: William A. Niese

William A. Niese

16

17 Title: Senior Vice President  
Law and Human Resources

Vice President and  
Assistant Secretary

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: LUXFER USA LIMITED

6  
7 DATED: AUGUST 21, 1991

8  
9 BY: Name DONALD D. BORDEN

10  
11 Signature 

12  
13 Title PRESIDENT

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 Martin Marietta Corporation on behalf of  
5 FOR DEFENDANT: Commonwealth Aluminum Corporation, (formerly  
6 known as Martin Marietta Aluminum, Inc.)

7 DATED:

SEPTEMBER 11, 1991

8  
9 BY: Name

Charles E. Carnahan

10  
11 Signature 

12  
13 Title

Vice President - Corporate Environmental Management

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: MASTER PROCESSING CORPORATION

6  
7 DATED: \_\_\_\_\_

8  
9 BY: Name

JOHN T. MURPHY

10  
11 Signature

John T. Murphy

12  
13 Title

PRESIDENT


14  
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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Maytag Corporation

6  
7       DATED: September 12, 1991

8  
9       BY: Name E. James Bennett

10  
11       Signature 

12  
13       Title Secretary

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Third Partial Consent Decree

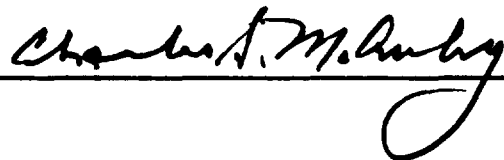


1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: McAULEY LCX CORPORATION  
(formerly McAuley Oil Company)

6  
7 DATED: September 18, 1991

8  
9 BY: Name Charles S. McAuley

10  
11 Signature 

12  
13 Title Chairman and President

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: McDonnell Douglas Corporation

6  
7 DATED: 11 September 1991

8  
9 BY: Name Dan Summers

10  
11 Signature 

12  
13 Title Senior Corporate Counsel

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4                               McKesson Water Products Company  
5                               formerly  
6       FOR DEFENDANT:       Sparkletts Drinking Water Corp

7       DATED:               September 12, 1991

8  
9       BY:   Name           Peter M. Riley

10  
11       Title   Signature   Vice President, Manufacturing

12  
13   Signature   Title       *Peter M. Riley*

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: MENASCO AEROSYSTEMS DIVISION CALIFORNIA OPERATION  
6 DIVISION OF COLTEC INDUSTRIES INC

7 DATED: September 12, 1991

8  
9 BY: Name Peter H. Wieschenberg

10  
11 Signature 

12  
13 Title Vice President

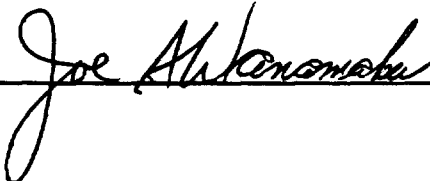
1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: MITCHELL ENERGY CORPORATION


6  
7 DATED: September 3, 1991

8  
9 BY: Name Joe A. Wanamaker

10  
11 Signature



12  
13 Title

Vice President & General Manager  
Continental Region 

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: MOBIL OIL CORPORATION

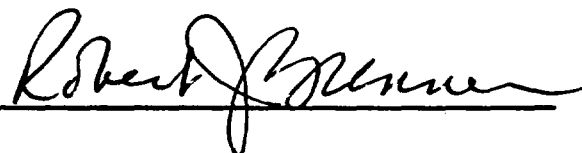
6 SEPTEMBER 11, 1991

7 DATED: \_\_\_\_\_

8 ROBERT J. BRENNER

9 BY: Name \_\_\_\_\_

10  
11 Signature



12  
13 Title

MANAGER, SUPERFUND RESPONSE GROUP

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: MYDRIN INC.

6  
7 DATED: 8-30-91

8  
9 BY: Name Daniel A. JAKARY

10  
11 Signature Daniel A. Jakary

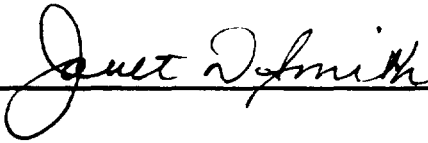
12  
13 Title General Manager

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: NL Industries, Inc., sued herein as NL Metals

6  
7 DATED: August 13, 1991

8  
9 BY: Name Janet D. Smith, Esq.

10  
11 Signature 

12  
13 Title - Associate General Counsel

14  
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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Norris Industries, Inc.  
6 (NI Industries, Inc., a Masco Industries subsidiary)

7 DATED: X 13 August 1991

8  
9 BY: Name David L. Hirsch

10  
11 Signature X David L. Hirsch

12  
13 Title Vice President & Senior Counsel

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Norris Industries, Inc. Weiser Lock Division

6  
7 DATED: August 13, 1991

8  
9 BY: Name David L. Hirsch

10  
11 Signature David L. Hirsch

12  
13 Title Vice President & Senior Counsel

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: OCCIDENTAL PETROLEUM CORPORATION

6  
7       DATED: \_\_\_\_\_

8  
9       BY: Name

Gerald M. Stern

10  
11       Signature



12  
13       Title

Exec. Vice Pres. & Sr. General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Oil & Solvent Process Co.  
A Subsidiary of Chemical Waste Management, Inc.

6  
7 DATED: 9/12/91

8  
9 BY: Name William J. Mitzel

10  
11 Signature W. Mitzel

12  
13 Title General Manager

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Oryx Energy Company

6  
7 DATED: September 19, 1991

8  
9 BY: Name J. E. Roberts

10  
11 Signature 

12  
13 Title Vice-President of Production

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

Owens-Illinois, Inc. on behalf of itself and its present  
and former subsidiaries Libbey Glass Inc., Owens-  
Brockway Glass Container Inc. and Nekoosa Packaging  
Corporation, successor by merger to OI Los Angeles

4  
5 FOR DEFENDANT: STS Inc.

6  
7 DATED: September 17, 1991

8  
9 BY: Name Arthur H. Smith

10  
11 Signature Arthur H. Smith

12  
13 Title Assistant Secretary

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: PPG Industries, Inc.

6  
7 DATED: September 11, 1991

8  
9 BY: Name E. B. Mosier

10  
11 Signature 

12  
13 Title Group Vice President, C&R

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: PACIFIC TUBE COMPANY

6  
7 DATED: September 5, 1991

8  
9 BY: Name G. C. McEvoy

10  
11 Signature 

12  
13 Title President



1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: PACKAGING CORPORATION OF AMERICA/EKCO PRODUCTS

6  
7       DATED: September 6, 1991

8  
9       BY: Name Patrick J. Fortune

10  
11       Signature 

12  
13       Title Senior Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: PARKER-HANNIFIN CORPORATION  
6

7 DATED: SEPTEMBER 10, 1991  
8

9 BY: Name JOSEPH D. WHITEMAN  
10

11 Signature   
12

13 Title VICE PRESIDENT, GENERAL COUNSEL & SECRETARY  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: PERVO PAINT COMPANY

6  
7 DATED: September 11, 1991

8  
9 BY: Name Joanne Womack

10  
11 Signature 

12  
13 Title President

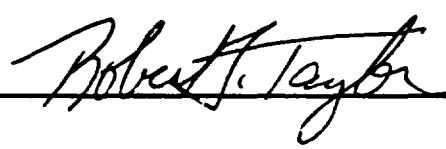
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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5       FOR DEFENDANT: Plywood Panels Inc. (formerly Davidson PWP)  
6

7       DATED: September 20, 1991  
8

9       BY: Name Robert S. Taylor  
10

11       Signature   
12

13       Title Chief Financial Officer  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Primerica Holdings, Inc.

6  
7 DATED: August 14, 1991

8  
9 BY: Name Jerome T. Fadden

10  
11 Signature Jerome T. Fadden

12  
13 Title Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: The Procter & Gamble Manufacturing Company

6  
7 DATED: 9/13/91

8  
9 BY: Name Stona J. Fitch

10  
11 Signature 

12  
13 Title Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: ProMark Group West  
for Major Paint

6  
7 DATED: September 11, 1991

8  
9 BY: Name Hubert Kim

10  
11 Signature 

12 Environmental Affairs  
13 Title Director- Regulatory, Safety, and

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: PRUDENTIAL OVERALL SUPPLY

6  
7 DATED: 9/12/91

8  
9 BY: Name DONALD C LAHN

10  
11 Signature Donald C Lahn

12  
13 Title PRESIDENT

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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: RLL Corporation (formerly known as Max Factor & Co.)

6  
7 DATED: September 11, 1991

8  
9 BY: Name Wade H. Nichols, III

10  
11 Signature *Wade H. Nichols, III*

12  
13 Title Vice President and Secretary

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

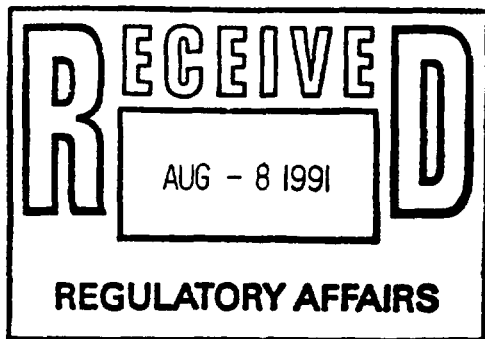
4  
5 FOR DEFENDANT: Reichhold Chemicals Inc.

6  
7 DATED: August 23, 1991

8  
9 BY: Name Albert F. Vickers

10  
11 Signature Albert F. Vickers

12  
13 Title Director, Regulatory Affairs



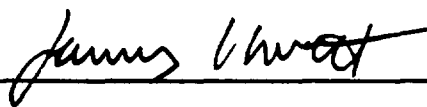
Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Reisner Metals, Inc.

6  
7 DATED: September 20, 1991

8  
9 BY: Name Jeremy F. Swett

10  
11 Signature 

12  
13 Title Secretary

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Third Partial Consent Decree

The undersigned Defendant hereby consents to the foregoing  
Third Partial Consent Decree concerning the Operating Industries,  
Inc. site.

FOR DEFENDANT:

Penta Uniform

DATED:

9-12-91

BY: Name

Anthony Richman

Signature

Anthony Richman

Title

Owner

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: REYNOLDS METALS COMPANY

6  
7 DATED: 8/9/91

8  
9 BY: Name Rodney E. Hanneman

10  
11 Signature Rodney E. Hanneman

12  
13 Title Vice President, Corporate Quality  
14 Assurance & Technology Operations

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: Rockwell International Corporation

6  
7       DATED: October 1, 1991

8  
9       BY: Name John R. Stocker

10  
11       Signature 

12  
13       Title Vice President

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: ROYAL ALUMINUM

6  
7 DATED: 20 SEP 91

8 INDAL INC.  
9 BY: Name per ROBERT B. LECKIE

10  
11 Signature 

12  
13 Title SECRETARY

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Royal Industries

6  
7 DATED: September 19, 1991

8  
9 BY: Name Louis D. Mattielli

10  
11 Signature 

12  
13 Title - Senior Vice President & Associate  
14 General Counsel & Secretary

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Third Partial Consent Decree

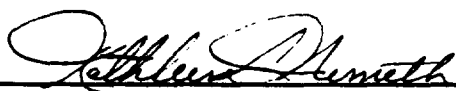


1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Sakeway Inc.

6  
7 DATED: August 27, 1991

8  
9 BY: Name KATHLEEN L. NEMETH

10  
11 Signature 

12  
13 Title ASSISTANT SECRETARY

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: SANTA FE ENERGY/C.W.O.D.

6  
7 DATED: September 13, 1991

8  
9 BY: Name David L. Hicks

10  
11 Signature David L. Hicks

12  
13 Title Vice President - Law

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: SENIOR ENGINEERING COMPANY

6  
7 DATED: September 13, 1991

8  
9 BY: Name R. A. Weisberg

10  
11 Signature   
12

13 Title President  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Shasta Beverages, Inc.

6  
7 DATED: September 4, 1991

8  
9 BY: Name Raymond J. Smith

10  
11 Signature 

12  
13 Title Vice-President Finance

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: Shell Oil Company

6  
7 SIGNATURE: 

8  
9 BY: Name T. R. Williams

10  
11 Dated September 12, 1991

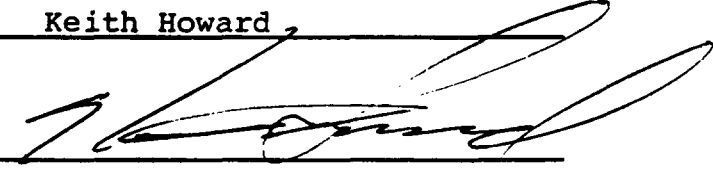
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13 Title Manager-Products Environmental Conservation  
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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Soule-Arnon Liquidating Agency

6  
7 DATED: September 11, 1991

8  
9 BY: Name Keith Howard

10  
11 Signature 

12  
13 Title - Attorney for Soule-Arnon Liquidating Agency

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Southern California Chemical Co., Inc..  
6 a dissolved and liquidated corporation

7 DATED: August 29, 1991

8  
9 BY: Name E. B. King

10  
11 Signature 

12  
13 Title Former President

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: SOUTHERN CALIFORNIA EDISON COMPANY

6  
7 DATED: September 6, 1991

8  
9 BY: Name ROBERT DIETCH

10  
11 Signature 

12  
13 Title VICE PRESIDENT

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Third Partial Consent Decree



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: SOUTHERN CALIFORNIA GAS COMPANY

6  
7 DATED: September 11, 1991

8  
9 BY: Name George E. Strang

10  
11 Signature

George E. Strang

12  
13 Title

Vice President, Engineering &  
Operations Support

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Southern California Rapid Transit District

6  
7 DATED: SEP 16 1991

8  
9 BY: Name Alan F. Pegg

10  
11 Signature 

12  
13 Title General Manager

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Southern Pacific Transportation Company

6  
7 DATED: September 12, 1991

8  
9 BY: Name Robert F. Starzel

10  
11 Signature 

12  
13 Title Vice Chairman

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: SOUTHWEST FOREST INDUSTRIES, INC.

6  
7 DATED: 8/29/91

8  
9 BY: Name LESLIE T. LEDERER

10  
11 Signature 

12  
13 Title VICE PRESIDENT

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: STARKIST FOODS, INC.

6  
7 DATED: August 26, 1991

8  
9 BY: Name RALPH A. WARD

10  
11 Signature 

12  
13 Title VICE PRESIDENT - OPERATIONS

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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: The Stroh Brewery Company

6  
7       DATED: September 20, 1991

8  
9       BY: Name George E. Kuehn

10  
11       Signature 

12  
13       Title Senior Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Superior Industries International, Inc.

6  
7 DATED: 8/27/91

8  
9 BY: Name R. Jeffrey Ornstein

10  
11 Signature 

12  
13 Title Vice President, Finance & Treasurer  
14  
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1       The undersigned Defendant hereby consents to the forego~~ing~~  
2 Third Partial Consent Decree concerning the Operating Indust~~ries~~  
3 Inc. site.

4  
5       FOR DEFENDANT: SUPRACOTE, INC.

6  
7       DATED: AUGUST 19, 1991

8  
9       BY: Name LEE B. PERRY

10  
11       Signature Lee B. Perry

12  
13       Title CFO

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Third Partial Consent Decree



1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: TRW Inc.

6  
7       DATED: September 6, 1991

8  
9       BY: Name James M. Roosevelt

10  
11       Signature 

12  
13       Title Assistant Secretary

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Teledyne Post

6  
7 DATED: September 27, 1991

8  
9 BY: Name Dana T. Richardson

10  
11 Signature 

12  
13 Title President

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Third Partial Consent Decree

-270-

1 The undersigned Defendant heraby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Teledyne Cast Products

6  
7 DATED: September 23, 1991

8  
9 BY: Name Carl F. Nowak

10  
11 Signature 

12  
13 Title President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.  
4

5 FOR DEFENDANT: Teledyne Laars  
6

7 DATED: September 23, 1991  
8

9 BY: Name Al Pichelli  
10

11 Signature   
12

13 Title Executive Vice President  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Teledyne Linair

6  
7 DATED: September 23, 1991

8  
9 BY: Name William P. Rutledge

10  
11 Signature W P Rutledge

12  
13 Title President

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Teledyne Microelectronics

6  
7 DATED: 9/23/91

8  
9 BY: Name MARVIN H FINK

10  
11 Signature 

12  
13 Title President

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: TELEDYNE SPRAGUE ENGINEERING

6  
7 DATED: September 23, 1991

8  
9 BY: Name FLOYD W. LUHER

10  
11 Signature Floyd W. Luher

12  
13 Title PRESIDENT

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Texaco Inc.

6  
7 DATED: September 3, 1991

8  
9 BY: Name J. Donald Annett

10  
11 Signature

J. Donald Annett

12  
13 Title

Vice President

14  
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Third Partial Consent Decree



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1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Transportation Leasing Co.

6  
7 DATED: September 9, 1991

8  
9 BY: Name Richard Stephan

10  
11 Signature

*Richard L. Stephan*

12  
13 Title

Vice President-Controller

14  
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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: TREE ISLAND INDUSTRIES LTD.

6  
7 DATED: SEPT 18, 1991

8  
9 BY: Name GARRY FLESHER

10  
11 Signature 

12  
13 Title V.P. FINANCE

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: '21' International Holdings, Inc., formerly  
6 General Felt Industries

7 DATED: September 12, 1991

8  
9 BY: Name Philip N. Smith, Jr.

10  
11 Signature



12  
13 Title Vice President

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: UNION OIL COMPANY OF CALIFORNIA

6  
7 DATED: 10 September 1991

8  
9 BY: Name Richard J. Stegemeier

10  
11 Signature   
12 Richard J. Stegemeier

13 Title President & Chief Executive Officer

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Third Partial Consent Decree

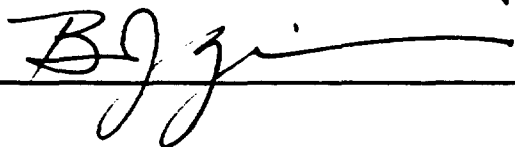
1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: UNION PACIFIC RESOURCES COMPANY

6  
7 DATED: SEPTEMBER 12, 1991

8  
9 BY: Name B. J. Zimmerman

10  
11 Signature

 RZL

12  
13 Title Vice President and General Counsel

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4 Uniroyal, Inc.  
5 FOR DEFENDANT: by The Uniroyal Goodrich Tire Company  
as successor in interest

6  
7 DATED: August 29, 1991

8  
9 BY: Name David C. Minc

10  
11 Signature David C. Minc

12  
13 Title Assistant General Counsel

14  
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Third Partial Consent Decree

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: United Air Lines, Inc.

6  
7       DATED: September 18, 1991

8  
9       BY: Name Lawrence M. Nagin

10  
11       Signature 

12  
13       Title Senior Vice President -  
Corporate Affairs and General Counsel



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: UNITED PARCEL SERVICE, INC.

6  
7 DATED: August 27, 1991

8  
9 BY: Name Edwin H. Reitman

10  
11 Signature X *Edwin H. Reitman*

12  
13 Title Vice President

1       The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5       FOR DEFENDANT: United States Brass Corporation (dba "Eastman Central")

6  
7       DATED: September 9, 1991

8  
9       BY: Name Scott G. Arbuckle

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11       Signature Scott G. Arbuckle

12  
13       Title President and Chief Executive Officer

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: United States Gypsum Company

6  
7 DATED: 9/13/91

8  
9 BY: Name Christopher J. McElroy

10  
11 Signature Christopher J. McElroy

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13 Title Senior Corporate Counsel  
14 USG Corporation

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Van Waters & Rogers Inc.

6  
7 DATED: 12 Sep 91

8  
9 BY: Name Billy J. Cooper

10  
11 Signature Billy Cooper

12  
13 Title Senior Corporate Counsel



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Voi Shan

6  
7 DATED: September 20, 1991

8  
9 BY: Name John D. Jackson

10  
11 Signature John D. Jackson

12  
13 Title VICE PRESIDENT

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Waterford Wedgwood USA Inc.  
For and on behalf of Franciscan Ceramics

6  
7 DATED: September 4, 1991

8  
9 BY: Name Christopher J. McGillivray

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11 Signature 

12  
13 Title Chief Executive Officer

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: WELCHES OVERALL CLEANING CO., INC.

6  
7 DATED: SEPT. 13, 1991

8  
9 BY: Name GROVEMAN & YOUNG, ATTORNEYS  
10 DANIEL R. WAX

11 Signature Daniel R. Wax

12  
13 Title COUNSEL TO WELCHES OVERALL CLEANING CO., INC.



1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: WESTERN CHEMICAL

6  
7 DATED: 8-9-91

8  
9 BY: Name Jimmy Dunn

10  
11 Signature 

12  
13 Title PRESIDENT

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Third Partial Consent Decree

**SIGNATURE PAGE**

**FOR WESTINGHOUSE ELECTRIC CORPORATION**

**AND SEVEN-UP BOTTLING CO. OF L.A.**

The undersigned Defendant, for and on behalf of itself and Seven-Up Bottling Co. of L.A., hereby consents to the foregoing Third Partial Consent Decree concerning the Operating Industries, Inc.. site.

DEFENDANT: Westinghouse Electric Corporation for itself and Seven-Up Bottling Co. of L.A.

DATED:

OCTOBER 28, 1991

BY: Name

JACK W. FISCH

Signature

Jack W. Fisch

Title

MANAGER, CORPORATE ENVIRONMENTAL

ACTIVITIES

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Willamette Industries, Inc

6  
7 DATED: 9-11-91

8  
9 BY: Name Charles A. Hess

10  
11 Signature Charles A Hess

12  
13 Title Corporate Technical Mgr.

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: WILMINGTON LIQUID BULK TERMINALS

6  
7 DATED: SEPTEMBER 16 , 1991

8  
9 BY: Name Donald R. Kurz

10  
11 Signature

Donald R. Kurz

12  
13 Title

President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT: Xerox Corporation

6  
7 DATED: September 10, 1991

8  
9 BY: Name Roland Magnin

10  
11 Signature 

12  
13 Title Executive Vice President

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Third Partial Consent Decree

1 The undersigned Defendant hereby consents to the foregoing  
2 Third Partial Consent Decree concerning the Operating Industries,  
3 Inc. site.

4  
5 FOR DEFENDANT. ZOLATONE PROCESS, INC.  
6 (former subsidiary of, and now merged  
into, Surface Protection Industries, Inc.

7 DATED: September 12, 1991

8  
9 BY: Name SURFACE PROTECTION INDUSTRIES, INC.

10  
11 Signature By:   
12 Robert C. Davidson, Jr.

13 Title President

1  
2 **EXHIBITS**  
3

4 **Exhibit A:** Gas Migration Control and Landfill Cover Operable  
5 Unit Record of Decision, Dated September 30, 1988  
6 and Amendment, Dated September 28, 1990.

7 **Exhibit B:** Scope of Work for the Gas Migration Control and  
8 Landfill Cover Operable Unit.

9 **Exhibit C:** List of Cash Defendants and payment schedule.

10 **Exhibit D:** List of Work Defendants.

11 **Exhibit E:** Third Partial Consent Decree 1991 Volumetric List.

12 **Exhibit F:** List of Settling Subsidiaries, Divisions, and  
13 Affiliated Entities.  
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**Exhibit A**

**Operating Industries, Inc.  
Gas Migration Control and Landfill Cover  
Operable Unit**

**RECORD OF DECISION**



**OPERATING INDUSTRIES, INC.**  
**GAS MIGRATION CONTROL OPERABLE UNIT**  
**RECORD OF DECISION**

**RECORD OF DECISION**

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## **DECLARATION**

### **SITE NAME AND LOCATION**

Operating Industries, Inc. (OII)  
Monterey Park, California

### **STATEMENT OF BASIS AND PURPOSE**

This decision document presents the selected remedial action for Operating Industries, Inc. Site, in Monterey Park, California, developed in accordance with CERCLA, as amended by SARA, and to the extent practicable, the National Contingency Plan. This decision is based upon the administrative record for this operable unit at this site. The attached index identifies the items which comprise the administrative record upon which the selection of the remedial action is based.

The State of California concurs with the selected remedy.

### **DESCRIPTION OF THE REMEDY**

This is the third operable unit for the OII site. As an operable unit this document addresses only the issue of landfill gas (LFG) migration control. The Gas Control Remedial Action will be integrated with the final site remedy as the component for collecting and destroying landfill gas which would otherwise be released from the site. Final cover, leachate collection, groundwater, slope stability, soil contamination, and final closure will be fully addressed in the final Remedial Investigation/Feasibility Study for the site, or in future Operable Units.

The major components of the selected landfill gas control remedy include:

- o Installing 58 new perimeter LFG extraction wells, as shown in Figure 5, with placement focused on minimizing offsite LFG migration.
- o Installing 48 pile driven wells on the top deck of the landfill with placement focused on maximizing source control of LFG.

- o Installing 50 shallow and 12 deep slope wells with placement focused on reducing surface emissions, and controlling intermediate to deep subsurface migration at the perimeter.
- o Installing new integrated perimeter and interior LFG headers (abovegrade).
- o Utilizing functional existing gas extraction wells and gas monitoring probes.
- o Installing 58 multiple completion monitoring wells at the property boundary.
- o Installing landfill gas destruction facilities with a capacity of approximately 9,000 cfm, and an automated control station for the gas control system.
- o Installing abovegrade condensate sumps to collect condensate from gas headers.
- o Installing leachate pumps in gas wells to de-water saturated zones, and installing abovegrade leachate sumps.

#### DECLARATION

The selected remedy is protective of human health and the environment, a waiver can be justified for whatever Federal and/or State applicable or relevant and appropriate requirements which will not be met, and it is cost-effective. This remedy satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility or volume as a principal element and utilizes permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable.

Because this remedy will result in hazardous substances remaining onsite above health-based levels, a review will be conducted within five years after commencement of the final remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

9.30.88  
Date

Daniel W. McGovern  
Daniel W. McGovern  
Regional Administrator  
EPA, Region IX

**DECISION SUMMARY**  
**OPERATING INDUSTRIES, INC.**  
**GAS MIGRATION CONTROL OPERABLE UNIT**  
**RECORD OF DECISION**

## **SCOPE AND ROLE OF OPERABLE UNIT**

The Operable Unit Feasibility Study (OUFS) for Landfill Gas (LFG) Migration Control at the Operating Industries, Inc. (OII) Landfill in Monterey Park, California, has been conducted to evaluate potential remedial alternatives for mitigating the LFG problems at the site. The U.S. EPA is addressing LFG problems as an operable unit so that a gas migration control remedial action can be initiated prior to implementation of the overall final remedial action for the site. The Gas Control Remedial Action will be integrated with the final site remedy as the component for collecting and destroying landfill gas which would otherwise be released from the site.

As an Operable Unit, this document addresses only the issue of LFG migration control. It does not address other issues such as leachate and condensate management, groundwater contamination, final site closure, and final remedy. This is the third operable unit for the OII site. A Record of Decision (ROD) for Site Control and Monitoring was signed on July 31, 1987, and a ROD for Leachate Management was signed on November 16, 1987. Final cover, leachate collection, groundwater, slope stability, soil contamination and final closure will be addressed in the final Remedial Investigation/Feasibility Study for the site, or in future Operable Units.

## **SITE DESCRIPTION**

The OII Landfill is located at 900 Potrero Grande Drive, Monterey Park, 10 miles east of Los Angeles (Figure 1). The site is 190 acres in size with 145 acres (south parcel) lying south of the Pomona Freeway (California Highway 60) and 45 acres (north parcel) to the north. Ground surface elevations adjacent to the south parcel vary from approximately 500 feet above mean sea level (msl) along the south boundary to approximately 380 feet above msl along the Pomona Freeway. The top of the south parcel varies from 620 to 640 feet above msl. The north parcel is relatively level. The site is owned by Operating Industries, Inc., and related entities.

The adjacent land ownership is as follows:

- o The Southern California Edison Company (SCE) owns the land abutting the north parcel, north of the Pomona Freeway. The SCE substation complex is located south of Potrero Grande Drive on the west side of Greenwood Avenue. A nursery leases the remaining SCE property.
- o The land east of the south parcel, bounded by the Pomona Freeway, Montebello Boulevard, and Paramount Boulevard, is owned by Chevron U.S.A., Inc., and is currently undeveloped. It is currently used for oil recovery by Chevron.
- o The Southern California Gas Company, a subsidiary of the Pacific Lighting Gas Supply Company, operates an underground gas storage facility in the area adjacent to the west boundary of the landfill.
- o A piece of property to the south is jointly owned by Continental Development of California, Inc., and California Bankers Trust Company.
- o The remaining land adjacent to the landfill is primarily residential with single-family homes to the south and southwest of the landfill boundary. The City of Montebello's Iguala Park also borders the southern boundary of the landfill.



**FIGURE 1**  
**SITE LOCATION MAP**  
**OPERATING INDUSTRIES, INC. LANDFILL**  
**OUGS-GAS MIGRATION CONTROL**



## LAND USE AND DEMOGRAPHY

The City of Monterey Park zoning ordinance designation for the OII Landfill is M, Manufacturing. In Monterey Park, land to the northwest of the landfill is zoned C-4 (Arterial Service Commercial), C-M (Heavy Commercial-Nonmanufacturing). To the south and west of the landfill, land use primarily consists of residential units (single-family houses). Land to the east is zoned R-A-O, Residential, Agricultural, Oil Production District. A cemetery lies to the northeast along Potrero Grande Drive, and the remainder of this area, between Neil Armstrong Street and Paramount Boulevard, is zoned residential.

The City of Monterey Park has a population of 54,338 and the City of Montebello has a population of 52,929 (1980 Census). Within a three-mile radius of the site there are approximately 53,000 residences.

## Regional Hydrogeology

OII is located in the La Merced Hills, between two major groundwater basins: the San Gabriel Basin to the north and east, and the Los Angeles Central Basin to the south.

The San Gabriel Basin aquifer system to the north includes both semiconsolidated and unconsolidated nonmarine sedimentary deposits of Pleistocene and Holocene age. The pattern of groundwater movement within this basin is generally from the perimeter mountains toward the Whittier Narrows. Subsurface outflow and surface flow in the Rio Hondo and San Gabriel Rivers through the Whittier Narrows provide a major source of recharge to the Los Angeles Central Basin, from the San Gabriel Basin to the north.

Los Angeles Central Basin aquifers consist of consolidated to unconsolidated marine and nonmarine rocks ranging from late Pliocene to Holocene age. Regional flow is generally to the west.

The depth and character of the water-bearing strata adjacent to and beneath the OII site are not well understood. Water level measurements from existing wells suggest that perched, unconfined, and confined zones may be present, but have not been adequately identified or characterized. Additional wells will be installed to define hydraulic gradients and to identify potential contaminant migration pathways as part of EPA's ongoing RI/FS at the site.

## **SURFACE-WATER HYDROLOGY**

The major surface streams that receive run-off from the Montebello Hills are the Rio Hondo and Los Angeles Rivers. Tributaries to these drainages in the area of the OII Landfill contain only ephemeral flow generated by storm or urban run-off. The majority of natural drainages have been extensively modified and channelized or diverted to storm sewers.

## **SITE HISTORY AND ENFORCEMENT ACTIVITIES**

Disposal operations at the OII Landfill site began in October 1948, when the Monterey Park Disposal Company (MPD) leased 14 acres from Henry H. Wheeler. An operations agreement between the City of Monterey Park and MPD provided that MPD would operate a municipal landfill on behalf of the City.

The landfill reverted to private ownership by the OII corporation in early 1952 when zoning variances for operating the landfill were not obtained by MPD. The site expanded to 218 acres as additional Wheeler property was obtained in 1953 and 1958.

The landfill was classified as Class II-I by the Los Angeles Regional Water Quality Control Board (LARWQCB) in October 1954. It was permitted to accept Group 2 wastes (ordinary household refuse, decomposable organic refuse, and selected scrap metal), Group 3 wastes (nondecomposable inert solids), and certain types of liquids.

The State of California (CALTRANS) purchased 28 acres from OII for the construction of the Pomona Freeway (completed in 1964), which separated the site into the 45-acre north parcel and the 145-acre south parcel. In August 1975, the Monterey Park City Council adopted Resolution 78-76, which eliminated solid waste disposal on the north parcel and on a 15-acre area in the northwestern section of the south parcel. Thus, after 1975, solid waste disposal was limited to a 130-acre section of the south parcel.

The height of the landfill was first limited to 540 feet in 1957 based on the height of the surrounding hills. The City of Monterey Park increased the height limit to 605 feet in June 1975, and to 640 feet in August 1975.

In March 1976, the LARWQCB restricted disposal of liquids to a 32-acre area in the western portion of the south parcel. OII was allowed to mix liquids with solid refuse at a ratio of 10 gallons

per cubic yard; the ratio was increased to 20 gallons per cubic yard in September 1976. Leachate generated at the site was collected and redispersed.

OII ceased accepting hazardous liquid waste in January 1983 and all liquid waste in April 1983. The California Department of Health Services (DOHS) classified leachate generated at the site as hazardous and prohibited redispersion, effective October 1984. OII stopped accepting all solid waste in October 1984.

Facilities have been constructed on the landfill to monitor and provide limited control of the offsite migration of landfill gas (LFG) and leachate from the landfill. A commercial gas recovery facility, referred to as the interior gas extraction system, was constructed by GSF Energy, Inc., in the interior area of the landfill. These systems are described in the following sections.

#### **Landfill Gas Monitoring Probes**

Sixteen LFG monitoring probes were installed by OII onsite along the west, south, and east borders of the south parcel of the landfill in 1976. In December 1981, 15 probes were added and the total 31 probes allowed LFG monitoring along the entire perimeter of the south parcel. In addition, 15 LFG monitoring probes were installed in the north parcel. Thirty-five perimeter probes were installed in July and August 1981 along the west and southwest boundaries to monitor the effectiveness of the air dike system.

#### **Perimeter Gas Extraction System**

The perimeter gas extraction system was installed by OII in five major phases on the south parcel to partially control offsite migration of LFG. Phase I (the air dike injection system), installed in 1981, consists of approximately 31 wells on the west border. This air dike injection system introduces air under pressure into the ground at the landfill perimeter to induce a positive pressure gradient and air flow as a barrier to LFG migration away from the landfill. Phases II/III/IV of the system, consisting of LFG extraction wells along the southern and eastern borders, were installed in 1982, and 1983.

After the wells were installed, gas was collected using a portable blower and flare system. In 1983, a permanent blower and flare station (now known as the auxiliary flare) was installed in the southwest corner of the landfill, and the wells were connected with a header system. By July 1983, both the auxiliary flare and portable system were in operation. Phase V wells were connected in May 1984.

The rim well system on the southeast slopes was also added in 1984. This system collects landfill gas from an upper bench of the landfill near the southern perimeter. The wells are relatively shallow, and extract LFG from the above-ground portion of the landfill. The rim wells are connected to the perimeter gas extraction system and, therefore, operate independently of the nearby interior gas extraction system. A new flare station (now known as the main flare) in the northwest corner of the landfill was added in 1984.

#### **Leachate Collection System**

The leachate collection system is described in the EPA Leachate Management ROD of November 16, 1987, and is not described further here. Liquids collected from the gas extraction system will be managed under the Leachate Management Remedial Action, or subsequent Leachate Management provision of the final remedy for the site.

#### **Interior Gas Extraction System**

GSF (then called NRG NuFuels, Inc.) signed a contract with OII in August 1974 to develop a LFG recovery system for commercial purposes at the OII Landfill site.

The GSF gas collection system and plant began recovering methane for sale to Southern California Gas Company in October 1979. After deciding that continued resource recovery operations at OII were no longer economically viable, GSF relinquished ownership of all subsurface facilities to OII per their contract and notified the EPA that they intended to dismantle their aboveground facilities by March 1, 1987.

In April 1987, GSF, the EPA, and the South Coast Air Quality Management District (SCAQMD) completed negotiations for the purchase of GSF surface facilities using OII trust fund monies held by the SCAQMD. Extraction and flaring of LFG continued from February to May 1987 under temporary agreement between GSF, the SCAQMD, and the EPA. At present, LFG extraction and flaring are operated by the EPA.

EPA is currently performing operation and maintenance of the existing leachate collection system, the existing perimeter gas extraction system, and the existing interior gas extraction system. The system operation and maintenance includes daily monitoring of LFG probes (onsite and offsite, including water meter boxes), conducting scheduled maintenance of blower/flare

stations and compressor equipment, and maintaining site security. This is described in the EPA Site Control and Monitoring ROD of July 31, 1987.

In addition, the EPA is conducting a remedial investigation/feasibility study (RI/FS) to determine the nature and extent of contamination resulting from the site and to assess potential remedial actions.

#### **Enforcement**

Various state and local agencies have recorded that Operating Industries frequently violated waste disposal regulations during the operating life of the landfill from 1952 to 1984. Site inspections identified some of these violations and agencies notified Operating Industries to correct the noted problems.

Recent State and Local enforcement actions include:

- 1978 - Order for Abatement 2121 (South Coast Air Quality Management District) - The Order includes site maintenance, grading, soil cover, and waste disposal. The order has been modified six times. In 1983, installation of a gas emissions control system and a permanent leachate control system were added. OII has not complied with the major requirements of the order.
- 1980 - (California Waste Management Board) - Listed site on the California Open Dump Inventory due to RCRA subtitle D violations.
- 1981 - Cease and Desist Order (L.A. County DOHS) - Issued to OII for operating the landfill without an approved plan for control of landfill gas.
- 1982 - (City of Montebello) - Filed suit for permanent closure of the landfill to abate a continuing public nuisance.
- 1983 - Notice and Order (L.A. County DOHS) - Cited violations of California Administrative Code.  
  
Supplemental Notice and Order (L.A. County DOHS) - Reiterates Order requirements, requires installation of gas probes, wells, daily monitoring of gas systems, reporting to L.A. County DOHS, CWMB, and SCAQMD.
- 1984 - Temporary Restraining Order 0500141 (CA DOHS) - Order to secure financial resources from OII for closure.

**30-Day Preliminary Injunction (CA DOHS) - Addressed activities required for closure.**

**Remedial Action Order LA001 (CA DOHS) - Required leachate management, site characterization, landfill gas control, and closure plans.**

**Notice of Violation to OII (CA DOHS) - Notification of noncompliance with Remedial Action Order.**

**Clean-up and Abatement Order 84-5 (Regional Water Quality Control Board) - Reiterates requirements of CA DOHS Order, required phase-out of leachate redispisal, and construction/operation of a permanent leachate control system.**

**Clean-up and Abatement Order 84-119 (RWQCB) - Required interception, pumping and legal disposal of leachate, and prohibited discharge of leachate on and off-site.**

**EPA enforcement activities include:**

**1982 - Section 3008 Notice - Notice of EPA Interim Status Part 265 RCRA violations at OII.**

**1983 - RCRA Complaint Issued.**

**OII submitted draft closure documents in lieu of Part B.**

**RCRA Consent Agreement Signed**

**1984 - 3007/104 letters issued to OII and GSF.**

**OII proposed for the National Priorities List**

**RCRA Section 3007/CERCLA Section 104 Notice Letters/Information Requests issued to Operating Industries, Inc, and individual owners. (8/23/84)**

**1986 - OII finalized on NPL**

**General Notice Letters/3007/104 Information Requests sent to 27 Potentially Responsible Parties representing 50 percent of manifested wastes. (6/20/86)**

**Follow-up 3007/104 Letter sent to OII owners.**

1987 - General Notice Letters/3007/104 Information Requests sent to 56 additional PRPs representing an additional 20 percent of manifested wastes. (1/9/87)

Follow-up 3007/104 Letter sent to OII owners.

Negotiations for PRP conduct of RI3/FS held, settlement not reached.

General Notice Letters/3007/104 Information Requests sent to 106 additional PRPs representing an additional 10 percent of manifested wastes. (11/4/87)

1988 - Joint Special Notice and Demand Letter issued to all noticed PRPs, including OII owners for past costs, design and construction of the Leachate Management Remedial Action, and Site Control and Monitoring Activities and EPA's associated oversight costs (2/18/88). Negotiations in progress.

Special Notice Letter/3007/104 Information Request sent to City of Monterey Park. (2/18/88)

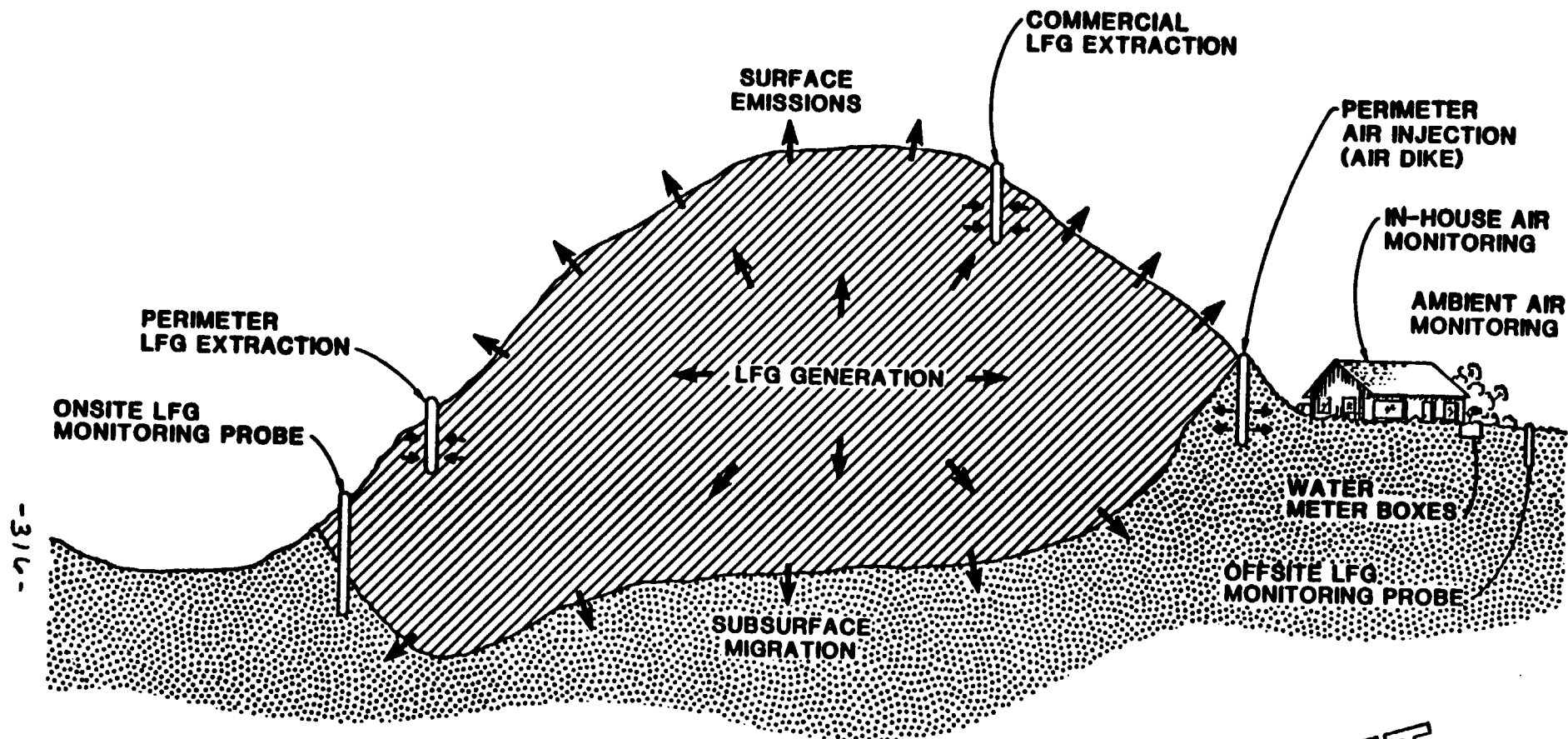
#### COMMUNITY RELATIONS HISTORY

A history of community relations activities at the OII site, the background on community involvement and concerns, and specific comments on the Feasibility Study and EPA's responses are found in the Responsiveness Summary which accompanies this ROD.

#### SITE CHARACTERISTICS

Figure 2 illustrates the mechanisms at work in generation, emission, and subsurface migration of gases at the OII Landfill. The four major mechanisms of gas migration at OII are:

- o Generation by anaerobic decomposition of the refuse within the landfill combined with volatile organic compounds released by hazardous substances disposed of at the landfill
- o Surface emissions by releases and diffusion to the atmosphere through the top and sides of the landfill as well as from other areas where gas has migrated in the subsurface to the surrounding neighborhood



DRAFT

LEGEND

- PATH OF LFG MIGRATION
- ▨ REFUSE

FIGURE 2  
SCHEMATIC OF LFG MIGRATION  
FROM ON LANDFILL SITE  
OPERATING INDUSTRIES, INC. LANDFILL  
OUFG-GAS MIGRATION CONTROL



- o Subsurface migration by releases and diffusion through the bottom (below ground surface) boundaries of the landfill
- o Collection and partial control by existing perimeter extraction, which removes gas along portions of the landfill slopes and boundary; by perimeter air injection, which provides an air curtain for partial containment along portions of the landfill boundary; and by existing interior extraction, which removes gas from within the interior of the landfill

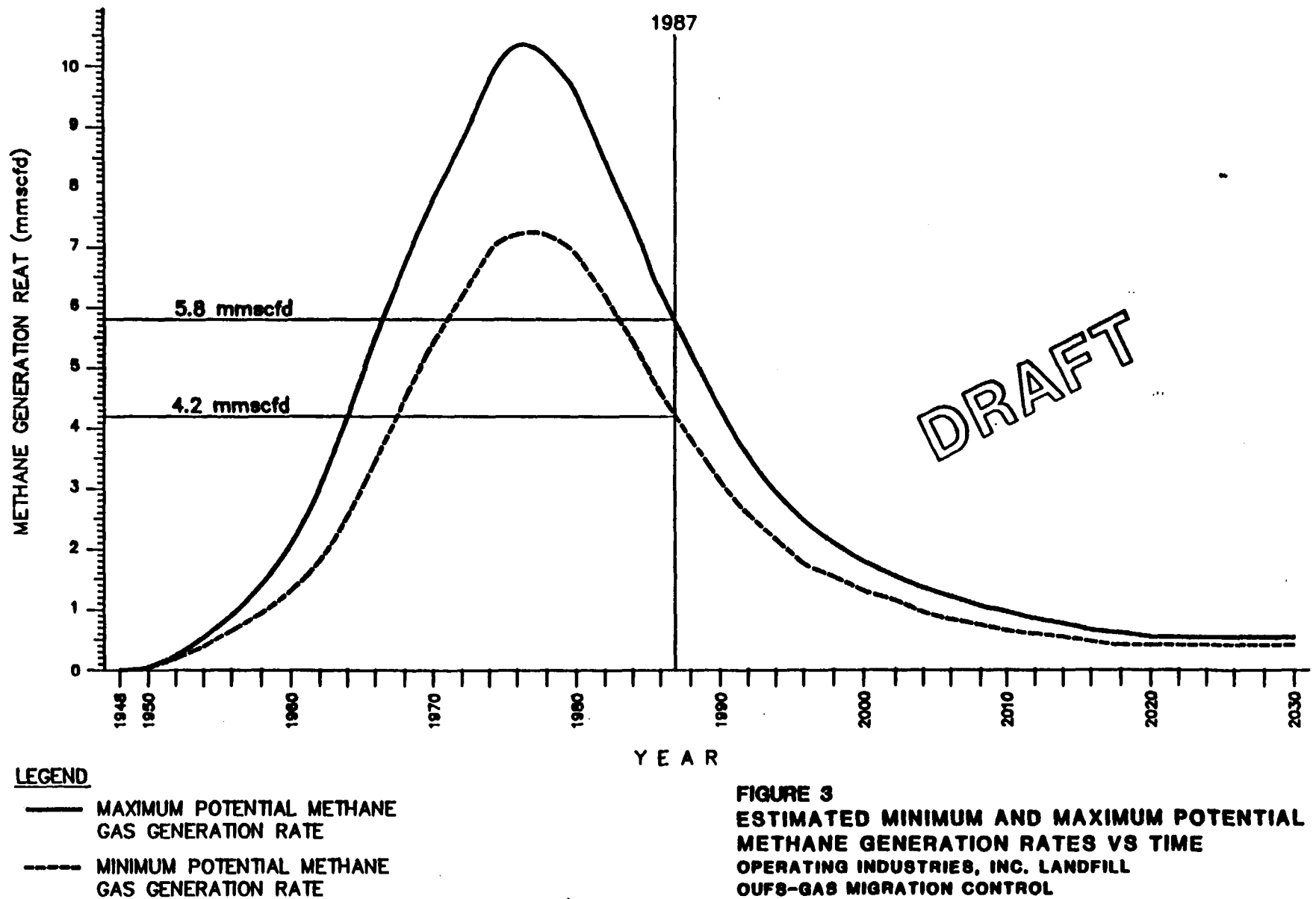
### **GAS GENERATION**

The estimated 1988 methane generation rate from the landfill is between 3.8 million and 5.2 million standard cubic feet per day (mmscfd). Although the average methane generation is decreasing, it may continue for 35 years or more (Figure 3).

During 1987 and early 1988 EPA installed 15 multiple completion gas monitoring wells. Probes were installed at up to six different depths, extending down to 340 feet. These probes are now being monitored by EPA for methane concentrations, gas pressure and sampled for analysis of other constituents in the gas stream. Contaminants which have been detected include benzene, carbon tetrachloride, 1,1-dichloroethane, 1,1-dichloroethylene, perchloroethylene, trans-1,2-dichloroethylene, trichloroethylene, toluene, vinyl chloride, and 1,1,1-trichloroethane.

Probe monitoring data support the evaluation of subsurface LFG migration. In the areas of high subsurface LFG migration identified in the west and east ends of the landfill, the new probes also showed high levels of methane. With the exception of LFG monitoring wells (GMW) No. 2 and No. 3, the probes on the east and west ends of the landfill also showed high levels of methane extending to the depth of the waste mass within a radius of 1,000 feet of the probe location. This information from the deep monitoring probes indicated that subsurface LFG migration is occurring at greater depths than previously known, and supports the recommendation in the FS for installing deep LFG extraction wells and monitoring probes at the perimeter in these areas.

The EPA probes located in the areas identified as having low LFG migration in the FS generally showed lower concentrations than the probes located on the east and west ends of the landfill. Several of these probes showed methane concentrations exceeding 5 percent, the lower explosive limit (LEL).



Additional source control and perimeter extraction wells proposed for other areas may also reduce methane levels in this area. However, the new data indicates that additional gas extraction wells may be required in areas of low methane migration if methane concentrations above 5 percent persist. The number and placement of these wells will depend on future monitoring data.

In summary, new EPA monitoring probe data verifies the presence of methane at concentrations greater than 5 percent in both the shallow and deep probes in the previously identified high migration areas. The data supports the distinction between high and low migration, but indicates that some additional gas extraction wells may also be required in the low migration areas.

At the eastern boundary of the site, subsurface investigation conducted by Geotechnical Consultants, Inc. (GTC) indicated deposits of refuse within Chevron U.S.A. property. The approximate extent of refuse at the east end of the landfill is shown in Figure 4. This composite figure was prepared based on an existing topographic map of the landfill and the conclusions drawn by GTC.

Gas migrating in the subsurface on the Chevron property to the east of the site would be more effectively controlled with perimeter wells installed at the boundary of the refuse (which extends off the OII property in this area) rather than wells installed at the legal property boundary. The zone of influence of wells installed on the legal boundary would have to extend to the perimeter of the waste mass in order to control gas migration. Establishing such zones of influence within the waste mass could lead to excessive oxygen intrusion, creating the potential for underground fires. Smaller zones of influence within native soil could be used to control gas migration if the wells were installed at the boundary of the refuse. The gas control alternatives that involve increased gas extraction on the South Parcel have the flexibility for modification of the conceptual design for gas well and header placement, to better address gas control in this area. This modification consists of locating the perimeter wells and perimeter header line at the edge of the refuse and potentially redistributing a portion of the slope wells in this area. These modifications can be accomplished during the design phase without altering the cost estimates for the alternatives. Field work during the design phase will more precisely define the extent of refuse in this area.



Landfill gas is also being generated within the 11 acres of waste located on the North Parcel of the OII site as confirmed by field monitoring of EPA probes in 1987. A more detailed discussion of the LFG investigation can be found in the Preliminary North Parcel Site Characterization Report, March 4, 1988.

Methane concentrations of 5 to 82 percent were found in the probes placed within the waste mass and at the perimeter of the waste mass. Generally, during monitoring, LFG was found to be prevalent within the landfilled area, as well as at the northwestern and southwestern boundaries of the North Parcel. Lab analysis of LFG samples confirmed the presence of elevated levels of methane. Carcinogenic and toxic organic compounds were also found in the landfill gas.

Methane levels (and, for the most part, levels of carcinogenic and toxic compounds) were found to be lower on the eastern portion of the North Parcel outside of the fill area. EPA believes that the majority of the compounds present in this area are due to the migration of gas away from the landfill areas on the North and South Parcels. EPA presently assumes that control of the gas migration problems of the filled areas of the North and South Parcels should eliminate the existing gas problem on the eastern portion of the North Parcel. Based upon EPA evaluation of the volume of the waste mass and the age of the waste, the North Parcel is beyond the peak of methane generation and is producing approximately 9,000 to 14,000 cubic feet of methane gas per day.

#### Contaminant Release

LFG that is not collected by the gas collection systems and destroyed by flaring is released by surface emissions or migrates laterally through porous soil, and thus contributes to emissions offsite around the landfill.

A portion of the LFG generated in the landfill is released or emitted by venting mechanisms through the landfill cover. The heat generated by the biochemical reactions in the landfill increases the vapor pressure and the rate of volatilization of organic chemicals present in the waste. The molecular weight, reactivity, and water solubility of each chemical also affect volatilization. Once volatilized, the organic chemicals are transported with the LFG by dominant mechanisms such as diffusion, convection, and barometric pressure pumping.

These release mechanisms have been documented by data on emissions from the landfill surface. The areas onsite with the highest amount of emissions (measured as methane) appear to be

the slopes. The slopes have a thinner cover and are prone to surface erosion and instability causing fissures and cracks. These areas, which will be further monitored during the upcoming RI/FS air sampling tasks, also abut many residences.

Subsurface LFG migration is another release mechanism at the OII landfill. Methane has been detected in water meter boxes and offsite probe locations in the residential neighborhoods at concentrations above the lower explosive limit. Historically, the area to the northwest of the landfill has not exhibited detectable levels of methane in the water meter boxes. The neighborhood to the southwest has continued to exhibit elevated levels of methane despite the existing LFG migration control systems at the landfill.

#### **Contaminant Transport Pathways**

Contaminants contained in the LFG either migrate offsite in subsurface soils, or are emitted to the ambient air through the landfill cover. Subsurface migration primarily occurs by diffusion (due to concentration gradients) and convection (due to pressure gradients) through refuse and soil. Chemical contaminants are released to ambient air through the landfill cover onsite or via surface soils around the landfill offsite and are transported by wind and prevailing air drainage patterns.

Contaminants may also move through the void spaces in underground utility conduits. The water meter box data indicate that this has occurred and is still occurring in the southwest section.

Urban development adjacent to the OII site in the mid-1970s resulted in extensive grading and modifications of the original topography. Grading required for access roads and residential lots resulted in excavation of ridges and placement of fill in low areas. Replaced fill, unless compacted effectively, may be more permeable to LFG than undisturbed material.

Geologic formations, such as faults, may also act as pathways for migration. Several faults have been identified in the area.

#### **SUMMARY OF SITE RISKS**

A preliminary risk assessment was performed to evaluate the potential public health impacts. This assessment focused only on the LFG issues; other issues will be incorporated into the risk assessment for the site in the overall RI/FS.

As of December 1986, many of the water meter boxes that previously had high methane readings close to the landfill were vented to prevent the build up of methane or other volatile contaminants. The data collected prior to venting indicated the presence of methane in concentrations within the explosive range. Methane concentrations continue to exceed the lower explosive limit in some of these boxes, and additional venting is planned as part of the Site Control and Monitoring Remedial Action. These data are useful for demonstrating that subsurface migration is occurring and still presents a risk if allowed to build up to high concentrations in enclosed spaces. Venting of meter boxes does not eliminate the potential for fire and explosion, since homes, sheds and other enclosed spaces are adjacent to the site. The potential for fire and explosion can only be eliminated by controlling landfill gas to below the the explosive limit (5%) of methane.

Methane build-up in enclosed spaces has been demonstrated at the OII site and may pose an acute and imminent hazard due to the risk of fire and explosion. Methane is a highly flammable gas at concentrations between 5 percent (LEL) and 15 percent (UEL). The water meter box and offsite probe data demonstrate that methane gas has migrated offsite, and methane has accumulated to concentrations up to 70 percent by volume in the meter boxes. If air is added to the enclosed space and decreases the concentrations to within the combustible range, a spark, lighted cigarette, or match can cause an explosion.

The preliminary risk evaluation is based solely on the LFG problem and the chronic effects of LFG components such as benzene and vinyl chloride to humans over a long-term exposure at the site. Methods assessed in the operable unit to remediate the methane problem may also alleviate the other components (e.g., benzene and vinyl chloride).

The risks associated with exposure to volatile organic compounds (VOCs) are estimated for the residential and occupational scenarios with inhalation as the only exposure route considered. The inhalation route is considered in the OUPS risk assessment since it is the criterion to be used to determine feasible technologies for the gas problem. The ambient air data were assumed to represent the air quality inside the houses. In-house data indicated the potential presence of contaminants, but were not used for residential exposure because the data were of questionable quality.

The population potentially exposed to these contaminants includes 2,150 people within 1,000 feet of the landfill as demonstrated by available data.

Contaminants detected in at least 10 percent of the ambient air samples include benzene, carbon tetrachloride, perchloroethylene, trichloroethylene, vinyl chloride, 1,1,1-trichloroethane, and toluene. Of these vinyl chloride is the only compound for which there is an ambient air quality standard, which is 10 ppb. The mean concentration between August 1983, and August 1986, was 1.8 ppb, and the maximum concentration was 14 ppb. The standard was exceeded 16 days during this time period, with the last exceedance occurring on August 23, 1985.

More defined information will be available for the final risk assessment to be included in the overall RI/FS after additional ambient and in-house air monitoring data is collected.

Exposure is estimated based on EPA's Superfund Public Health Evaluation Manual (1986) and CH2M HILL Risk Assessment Guidance document (1986).

The daily chemical intakes via inhalation of noncarcinogens for a 70-kg adult and for 30-kg and 10-kg children in a residential setting were compared to acceptable intakes for chronic exposure (AIC). None of the contaminants exceeded the AIC. The daily chemical intake for the occupational scenario did not exceed the acceptable chronic or subchronic intake levels.

The Hazard Index for multiple exposures was calculated at less than one, therefore, no effect is expected to occur from exposure to the toxic chemicals at the levels found around OII.

The excess lifetime cancer risk was estimated at  $1.6 \times 10^{-4}$  for the residential setting and  $5.4 \times 10^{-5}$  for the occupational scenario. The cancer risk was dictated primarily by benzene and vinyl chloride. However, benzene was not detected in 85 percent of the samples collected and vinyl chloride was not detected in 50 percent of the samples. The detection limit for benzene was 5 ppb in 1983 and 2 ppb in 1984. Thus, the cancer risk was calculated using limited data, and was affected by sensitivity in the analytical technique. Additional data from upcoming ambient air monitoring should allow a distinction between the background risk posed by ambient air in the area, and additional risk posed by contaminants from the OII site. This risk assessment will be presented in the overall RI/FS for the site.



## **DOCUMENTATION OF SIGNIFICANT CHANGES**

Alternatives 9 and 10 (the gas control system for the south parcel and the gas destruction facility, and the gas control system for the north parcel, respectively) were presented in the proposed plan as the preferred alternative. No significant changes have been made to these alternatives, although a modification of the conceptual design for the gas destruction facility may be required.

EPA originally proposed thermal destruction of the landfill gas using "flare" gas incinerators. The ARAR governing emissions from the thermal destruction of the landfill gas has been clarified (See the Statutory Determinations Section of the ROD). This ARAR limits emissions of CO to 550 pounds per day, and NOx to 100 pounds per day, and the exemption from the emissions offset requirements for landfill gas facilities is not allowable. Therefore, EPA may be required to either establish sufficient additional controls on the proposed landfill gas flares to achieve these requirements, or consider alternative gas incinerator designs which would allow further emissions controls. This change constitutes a minor modification of the proposed remedy. Thermal destruction will still be utilized and this modification will not significantly affect the cost of the selected remedy. Additional control equipment for flare emissions could increase the cost of the flare facility by \$1 million. Use of alternative incinerator designs may increase the remedy costs by \$1 to \$2 million. Since the cost of the proposed remedy was previously estimated at \$73 million, with an accuracy range of -30% to +50%, the cost of the remedy is not significantly affected.

If the emissions requirement for landfill gas destruction cannot practicably be achieved, EPA will invoke the waiver from these requirements under SARA, on the grounds that compliance with these requirements would cause more damage to human health and environment (by preventing collection and destruction of landfill gas at OII) than waiving them.

Comments were received which suggested that additional interim cover or partial final cover should be applied on the slopes of the landfill as part of this Operable Unit to further improve control of surface landfill gas emissions. The Feasibility Study deferred cover options for landfill gas control due to data limitations which impacted the technical feasibility of cover evaluation, design, and construction at this time. However, the Feasibility Study did note that integration with the cover would be required for control of surface emissions from the site. As

information becomes available from studies conducted by EPA and/or other parties, or from Site Control and Monitoring activities, EPA will consider the feasibility of integrating additional interim cover or partial final cover with the construction of the selected gas control remedy, and this activity may be added to this Operable Unit. If information becomes available to allow development and evaluation of conceptual cover designs an opportunity for public comment on proposed cover alternatives may be offered, as appropriate.

Several of the alternatives in the Feasibility Study included resource recovery components, however, these were found not to be cost-effective, and therefore, were not included in the preferred alternative. Although the selected remedy does not include design and construction of a resource recovery component, it does allow for EPA to decide to design and construct a resource recovery component in the future if resource recovery becomes cost-effective, and such a decision is consistent with EPA's other decision making criteria.

#### **DESCRIPTION OF ALTERNATIVES**

##### **GOALS AND OBJECTIVES**

The goals and objectives for remediation include:

- o Limiting methane concentration to less than 5 percent at the site boundary
- o Controlling surface emissions of LFG such that total organic compound concentration is less than 50 ppm on the average and methane concentration is less than 500 ppm at any point on the surface through integration of the gas control remedy and the final cover for the site. Although, prior to final cover placement an interim goal will be to reduce surface emissions to a significant degree, a waiver from full compliance with this ARAR will be required until the final remedy is implemented.
- o Minimizing the odor nuisance - this is directly associated with the reduction of surface emissions, and consequently, although odor reduction will be achieved prior to final cover placement, integration with the final cover will be required to fully address this problem

- o Attaining applicable or relevant and appropriate standards, requirements, criteria, or limitations under other federal and state environmental laws according to the terms of Section 121 of SARA (For an operable unit compliance with ARARs (such as surface emissions control) may be waived if compliance is expected to be achieved through implementation of the final remedy.)
- o Expediting implementation - sequencing and phasing remedial activities to rapidly mitigate identified gas problems
- o Providing consistency with final remedies - considering potential effects of future remedial activities in developing alternatives to mitigate and minimize identified gas problems
- o Integrating gas operations - optimizing migration control by integrating perimeter and interior gas extraction systems
- o Using resource recovery technologies to the maximum extent practicable if cost-effective

#### **SUMMARY OF GAS FS ALTERNATIVES**

The alternatives which underwent detailed evaluation in the FS ranged from maintaining the existing LFG systems, to extensive additional well placements to extract LFG. LFG destruction systems ranged from simple flares to a LFG-fired steam boiler with electrical power generation.

Two of the alternatives included a resource recovery element that uses LFG combustion to generate steam and drive steam turbine electrical generators. These could provide electricity for sale to the local utility company.

Except for Alternatives 0 and 1 (no action and status quo, respectively), the emphasis of the alternatives is on increased collection and destruction or utilization of the LFG through thermal destruction. Other gas cleaning or processing technologies were eliminated during the initial screening of alternatives. Alternatives 1 through 9 are possible remedies for the south parcel and alternative 10 is for the north parcel.

#### Alternative 0

No Action. Walk away, cease extraction system and air dike operation.

#### Alternative 1

Status Quo. Operate existing systems as is.

- o Air dike--31 wells
- o OII system (scope wells)--79 wells
- o GSF system--64 wells
- o GSF flare station--1 blower, 1 flare
- o OII flare station--3 blowers, 3 flares

Methane collected--2.0 million standard cubic feet per day

- o Percent of methane generated--52 percent
- o Percent increase--0 percent

#### Alternative 2

Improve Alternative 1 by replacing the header line abovegrade, collecting condensate, and modifying, improving, and integrating the flare facilities.

#### Alternative 3

Minimal Additional Gas Extraction. Expansion of Alternative 2.

- o Replace air dike with extraction wells
- o 29 new perimeter wells
- o 25 new interior wells
- o New perimeter probes to monitor performance

Methane collected--2.4 million standard cubic feet per day

- o Percent of methane generated--63 percent
- o Percent increase--22 percent

#### Alternative 4

Intermediate Additional Gas Extraction. Expansion of Alternative 2.

- o Replace air dike with extraction wells
- o 41 new perimeter wells
- o 63 new interior wells
- o New perimeter probes to monitor performance
- o 1 new blower, and 1 new flare

Methane collected--2.9 million standard cubic feet per day

- o Percent of methane generated--77 percent
- o Percent increase--50 percent

#### Alternative 5

Maximum Additional Gas Extraction. Expansion of Alternative 2.

- o Replace air dike with extraction wells
- o 56 new perimeter wells
- o 96 new interior wells
- o New perimeter probes to monitor performance
- o 2 new blowers, 2 new flares

Methane collected--3.4 million standard cubic feet per day

- o Percent of methane generated--90 percent
- o Percent increase--78 percent

#### Alternative 6

Alternative 5 with gas boiler and steam generator added.

- o Net electric output--6.1 mw
- o Net revenues--\$2.4 million
- o Duration of electric generation--10 years

#### Alternative 7

Replacement of existing systems with a completely new system.

- o 59 new perimeter wells
- o 180 new interior wells
- o New perimeter probes to monitor performance
- o 6 new blowers, 6 new flares

Methane collected--3.4 million standard cubic feet per day

- o Percent of total methane--90 percent
- o Percent increase--78 percent

#### Alternative 8

Alternative 7 with gas boiler and steam generator. Uses the same resource recovery system as Alternative 6.

#### Alternative 9

Modified Alternative 7. Uses existing gas extraction wells.

- o 58 new perimeter wells
- o 110 new interior wells

- o 105 existing wells
  - o New perimeter probes to monitor performance
  - o 6 new blowers, 6 new flares
- Methane collected--3.4 million standard cubic feet per day
- o Percent of total methane--90 percent
  - o Percent increase--78 percent

#### Alternative 10

##### **North Parcel System.**

- o 6 new wells and header line
- o Existing LFG monitoring probes
- o Integrated with South Parcel alternative for LFG destruction

Methane collected--.009 to .014 million standard cubic feet per day

In the FS, remedial action alternatives are described in sufficient detail to develop order-of-magnitude cost estimates (-30 to +50 percent) and to allow comparison of alternatives. They are based on the existing site data and understanding of site conditions as well as estimates of future conditions. Information presented concerning sizing of equipment, LFG flows, and extracted LFG quality is preliminary and is useful for evaluation and comparison of alternatives. Values to be used for design will be re-evaluated in the predesign or final design efforts. In addition, data collected as part of continuing site remedial investigation efforts will supplement understanding of current site conditions and may help in optimizing an alternative. Variations in design could include:

- o Number and placement of components such as header lines and extraction wells
- o Extraction rates
- o LFG quality (constituent concentration).

It should also be noted that Alternatives 2 through 8 include facilities for the collection of condensate and/or leachate which result from LFG migration control remedial actions. However, facilities and costs associated with condensate and leachate treatment and/or disposal are not included in these alternatives. Leachate and condensate will be managed under EPA's Leachate Management Remedial Action.

## **SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES**

Alternative Nos. 0 through 2 are not acceptable gas control alternatives because the quantity of LFG collected would remain the same or decrease. The potential threat from fire and explosion, and contamination of the ambient air from surface emissions would continue.

Alternative No. 3 would provide additional partial control of LFG in some areas. However, control of subsurface migration to less than 5 percent methane and surface emissions to the SCAQMD requirements (when the final cover is implemented) are not expected to be achieved. Therefore, the potential threat from fire and explosion and the contamination of the ambient air from surface emissions would continue. The remedial goals and objectives, including overall protection of human health and the environment, compliance with ARARs, and long and short-term effectiveness would not be met.

Alternative No. 4 could possibly achieve control of subsurface migration and surface emissions in compliance with ARARs. However, this level of control is not considered to be likely. If this alternative does not achieve the ARARs, then the potential threat of fire and explosion and contamination of ambient air could continue, therefore this is not considered an effective alternative.

Alternative Nos. 5, 6, 7, 8 and 9 all have a high probability of controlling subsurface migration and surface emissions (when integrated with the final cover) to achieve ARARs. This level of control will eliminate the threat of fire and explosion and should reduce the amount of contaminants released to the ambient air to protective levels. These alternatives are, therefore, protective of public health and environment. All of these alternatives (5 through 9) are considered roughly equivalent in their effectiveness and implementability.

Alternative Nos. 6 and 8 include electrical generation resource recovery from the LFG. An economic analysis found that the net costs of implementation and operation and maintenance would be increased rather than reduced by these alternatives because the benefit to cost ratios for the resource recovery technologies are less than one. Therefore, these two alternatives were not found to be cost-effective.

Alternative 9 is more cost-effective than alternatives 5 and 7 because it uses existing wells and alternative well installation techniques. The 30-year present worth cost for this alternative

(using a 3 percent discount rate) is estimated at \$72 million, compared to \$90 million for Alternative 5 and \$96 million for Alternative 7. This alternative is also more reliable than Alternative 5 due to the complete replacement of the gas extraction and flaring facilities, and is therefore considered to offer better short and long-term effectiveness.

Alternative 10 is a separate component that will control gas migration in the subsurface and surface emissions from the North Parcel. This alternative is readily implementable and can be integrated with Alternative 9 which will provide LFG extraction and destruction facilities. The 30-year present worth cost of Alternative 10 is \$1.1 million.

Tables 1 and 2 provide a brief comparison summary of the alternatives. These tables present information on EPA's decision making criteria of capital, operations and maintenance, and present worth costs, effectiveness, and compliance with ARARs. Table 3 provides a more detailed comparison of the alternatives. This table presents information on EPA's decision making criteria of overall protection of human health and environment (both short- and long-term effectiveness and permanence), implementability, and compliance with ARARs.

EPA's selected remedy is a combination of Alternatives 9 and 10. It offers a degree of protection of public health and environment that exceeds that of Alternatives 0 through 4, is equivalent to the protection offered by Alternatives 5 through 8, and is readily implementable.

The State of California, Department of Health Services, the Regional Water Quality Control Board, the City of Montebello, and the Los Angeles County Department of Health Services all support the selection of Alternatives 9 and 10 as the selected remedy. The local community group, H.E.L.P., Homeowners to Eliminate Landfill Problems, also support the selection of Alternatives 9 and 10.

The California Waste Management Board, and one local community member preferred Alternative 7 over Alternative 9, because they were opposed to the inclusion of functional existing gas extraction wells at OII. EPA considers it to be more cost-effective to include these functional wells rather than replacing them unnecessarily. EPA's selected remedy provides money to replace these wells when they are no longer functional, as part of yearly operations and maintenance.



Table 1  
ALTERNATIVES COMPARISON SUMMARY  
OII LPG MIGRATION CONTROL

Alternative		Effectiveness			Cost Estimates <sup>a</sup> (\$ Millions)	
No.	Description	Innovative or Resource Recovery Technology	Estimated Additional LPG Collection (%) <sup>b</sup>	Probability of Meeting or Exceeding ARARs	Capital Investment	O/M <sup>c</sup>
0	No Action	No	-	No	0	0
1	Status Quo	No	0	No	0	1.6
2	Improved Status Quo	No	0	No	5.8	1.5
3	Minimal Gas Extraction with LPG Flaring	No	+20	Partially	15.5	2.0
4	Intermediate Gas Extraction with LPG Flaring	No	+45	Possibly	23.3	2.5
5	Maximum Gas Extraction with LPG Flaring	No	+70	High Probability	32.1	3.0
6	Maximum Gas Extraction with LPG Boiler and Steam Power Generation	Yes	+70	High Probability	46.6	1.4 <sup>d</sup> 3.0 <sup>e</sup>
7	Replacement Gas Extraction with LPG Flaring	No	+70	High Probability	45.3	2.6
8	Replacement Gas Extraction with LPG Boiler and Steam Power Generation	Yes	+70	High Probability	59.8	1.0 <sup>d</sup> 2.6 <sup>e</sup>
9	Modified Replacement Gas Extraction with LPG Flaring	No	+70	High Probability	27	2.3
10	North Parcel System	No	+70	High Probability	0.4	0.038

<sup>a</sup>These costs are order-of-magnitude level estimates (i.e., the cost estimates have an expected accuracy of -30 to +50 percent).

<sup>b</sup>Percent increase over projected (based on LPG generation model) LPG collected in 1990 using existing LPG facilities.

<sup>c</sup>Operation/Maintenance, net estimated annual costs, 30 years, rounded off.

<sup>d</sup>Operation/Maintenance, net estimated annual costs, 0-10 years, rounded off.

<sup>e</sup>Operation/Maintenance, net estimated annual costs, 11-30 years, rounded off.

**Table 2**  
**NET PRESENT WORTH OF ALTERNATIVES**

<u>Alternative</u>	<u>Project Life</u>	<u>Present Worth Rates (\$ millions)</u>		
		<u>@3%</u>	<u>@5%</u>	<u>@10%</u>
1	30 years	31.1	24.4	15.0
	45 years	37.5	27.2	15.1
	60 years	41.4	28.3	14.9
2	30 years	35.3	29.0	20.0
	45 years	41.6	31.7	20.2
	60 years	45.5	32.9	20.2
3	30 years	54.1	45.7	34.0
	45 years	62.3	49.4	34.3
	60 years	67.6	51.1	34.3
4	30 years	71.5	61.1	46.5
	45 years	82.1	65.9	46.9
	60 years	88.8	68.1	46.9
5	30 years	90.0	77.5	60.0
	45 years	103.0	83.5	60.6
	60 years	111.2	86.2	60.6
6	30 years	94.0	82.2	67.7
	45 years	107.0	88.8	68.4
	60 years	115.3	91.5	68.4
7	30 years	96.1	85.2	69.8
	45 years	107.6	90.4	70.3
	60 years	114.9	92.9	70.3
8	30 years	100.2	90.5	77.5
	45 years	111.6	95.8	78.1
	60 years	119.0	98.0	78.1
9	30 years	71.6	61.9	48.4
	45 years	81.5	66.5	48.8
	60 years	87.9	68.6	48.9
10	30 years	1.1	1.0	0.8
	45 years	1.2	1.0	0.7
	60 years	1.2	1.0	0.7

**Table 3**  
**EFFECTIVENESS EVALUATION OF ALTERNATIVES**

<u>Effectiveness Criteria</u>	<u>Alternative 0</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
<u>Protectiveness of Human Health and the Environment</u>			
o Estimated reduction in methane normally released as surface emissions and subsurface migration <sup>a</sup>	None	None	None
o Surface emissions control - comply with ARARs (less than 50 ppm average; 500 ppm maximum at any point); compliance requirement deferred to the final remedy	Will not comply	Will not comply	Will not comply
o Subsurface migration control - comply with ARARs (less than 5 percent at the boundary)	Will not comply	Will not comply	Will not comply
o Source control - LFG collection at the source	None	No additional source control	No additional source control
o Resource recovery	None	None	None
o Odor control	None	Inadequate	Inadequate
<u>Reliability</u>			
o Potential for poor performance or failure of system components (assuming design criteria represent actual field conditions)	NA	Poor reliability as evidenced by current operational problems at site	Improved reliability Slight reduction (not estimatable) due to system improvements
o Operational flexibility to address variations between design criteria and actual field conditions	NA	NA	System improvements are expected to allow greater flexibility in flare system operation and header maintenance

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Table 3  
(Continued)

Effectiveness Criteria	Alternative 3	Alternative 4	Alternative 5
<u>Protectiveness of Human Health and the Environment</u>			
o Estimated reduction in methane normally released as surface emissions and subsurface migration	Reduction estimated at 0.4 mmscfd (22 percent reduction in methane release)	Reduction estimated at 0.9 mmscfd (50 percent reduction in methane release)	Reduction estimated at 1.4 mmscfd (78 percent reduction in methane release)
o Surface emissions control - comply with ARARs (less than 50 ppm average; 500 ppm maximum at any point); compliance requirement deferred to the final remedy	Additional extraction wells on slopes; monitoring data required to determine compliance; more likely to comply than Alternatives 1 and 2	More wells on slopes than Alternative 3; more likely to comply than Alternatives 2 and 3	Maximum well coverage of "add on" alternatives, more likely to comply than Alternative 4. High probability of compliance.
o Subsurface migration control - comply with ARARs (less than 5 percent at the boundary)	Additional extraction wells at the landfill perimeter; monitoring data required to determine compliance; not likely to comply	More wells on perimeter than Alternative 3; more likely to comply than Alternatives 2 and 3	Maximum well coverage of "add on" alternatives, more likely to comply than Alternative 4. High probability of compliance.
o Source control - LFG collection at the source	Additional interior wells will collect more LFG from within the refuse than Alternatives 1 and 2	More interior wells than Alternative 3 will collect more LFG	Maximum well coverage of "add on" alternatives; should provide greater degree of source control than Alternative 4.
o Resource recovery	None	None	None
o Odor control	Some reduction from additional wells on landfill slopes	Greater reduction in odors than Alternative 3	Greater reduction in odors than Alternatives 3 and 4
<u>Reliability</u>			
o Potential for poor performance or failure of system components (assuming design criteria represent actual field conditions)	Low; costs include periodic replacement of equipment, standby gas blower, and flare capacity	Reliability of LFG collection and flaring is same as Alternative 3	Reliability of LFG collection and flaring is same as Alternative 3
o Operational flexibility to address variations between design criteria and actual field conditions	Liquid/leachate pump provided for each well if necessary; use of oversized collection headers to allow additional well installations, flexibility limited by existing systems layout (i.e., header configuration and well design and placement).	Same as Alternative 3	Same as Alternative 3

Table 3  
(Continued)

Effectiveness Criteria	Alternative 6	Alternative 7	Alternative 8
<u>Protectiveness of Human Health and the Environment</u>			
o Estimated reduction in methane normally released as surface emissions and subsurface migration	Reduction estimated at 1.4 mmcsfd (78 percent reduction in methane release)	Reduction estimated at 1.4 mmcsfd (78 percent reduction in methane release)	Reduction estimated at 1.4 mmcsfd (78 percent reduction in methane release)
o Surface emissions control - comply with ARARs (less than 50 ppm average; 500 ppm maximum at any point); compliance requirement deferred to the final remedy	Same as Alternative 5	Greatest potential for control due to integration of complete system through design and construction does not rely on existing well locations and header configuration. Improved reliability enhances protectiveness.	Same as Alternative 7
o Subsurface migration control - comply with ARARs (less than 5 percent at the boundary)	Same as Alternative 5	Greatest potential for control due to integration of complete system through design and construction does not rely on existing well locations and header configuration. Improved reliability enhances protectiveness.	Same as Alternative 7
o Source control - LPG collection at the source	Same as Alternative 5	Greatest potential for control due to integration of complete system through design and construction does not rely on existing well locations and header configuration. Improved reliability enhances protectiveness.	Same as Alternative 7
o Resource recovery	Power generation with LPG boiler/steam turbine generator; an estimated 6000 kW of power may be recovered	None	Power generation with LPG boiler/steam turbine generator; an estimated 6000 kW of power may be recovered
o Odor control	Same level of odor control as Alternative 5	Greatest potential for control due to integration of complete system through design and construction does not rely on existing well locations and header configuration. Improved reliability enhances protectiveness.	Same level of odor control as Alternative 7

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Table 3  
(Continued)

Effectiveness Criteria	Alternative 6	Alternative 7	Alternative 8
<b>Reliability</b>			
o Potential for poor performance or failure of system components (assuming design criteria represent actual field conditions)	Reliability of LPG collection and flaring is same as Alternative 3; power generation equipment requires high maintenance and is less reliable than other components	Reliability of LPG collection and flaring is greater than for all other alternatives because all facilities are new	Reliability of LPG collection and flaring is same as Alternative 3; power generation equipment requires high maintenance and is less reliable than other components. Overall reliability better than Alternative 6 but less than Alternative 7.
o Operational flexibility to address variations between design criteria and actual field conditions	Same as Alternative 3	Greatest flexibility, installation of complete new system is not tied to existing flare facilities, existing header configuration, or well design and location.	Same as Alternative 3

NA = Not Applicable.

\* Reduction of methane normally released as surface emissions and subsurface migration are based on LPG generation and loss estimates projected for 1990. Normal methane losses in 1990 are defined as those that would occur utilizing existing facilities (e.g., as in Alternatives 1 and 2). Methane loss reductions presented are approximations based on assumptions and theoretical calculations. They are useful for purposes of comparing alternatives but do not reflect actual values.

Table 3  
(Continued)

Effectiveness Criteria	Alternative 9	Alternative 10
<u>Protectiveness of Human Health and the Environment</u>		
o Estimated reduction in methane normally released as surface emissions and subsurface migration <sup>a</sup>	Reduction estimated at 1.4 mmscfd (78 percent in methane release) methane per day.	Reduction of estimated release of about 11,500 cubic feet of methane per day
o Surface emissions control - comply with ARARs (less than 50 ppm average; 500 ppm maximum at any point); compliance requirement deferred to the final remedy	Greater than Alternative 5, approximately equal to Alternative 7 once existing wells are replaced. High probability of compliance.	Likely to comply with the requirements
o Subsurface migration control - comply with ARARs (less than 5 percent at the boundary)	Greater than Alternative 5, approximately equal to Alternative 7 once existing wells are replaced. High probability of compliance when integrated with the final cover.	Most likely to comply with the requirements
o Source control - LPG collection at the source	Greater than Alternative 5, approximately equal to Alternative 7 once existing wells are replaced. High probability of compliance	Maximum well coverage
o Resource recovery	None	None
o Odor control	Greater than Alternative 5, approximately equal to Alternative 7 once existing wells are replaced. High probability of compliance	Would cut down odor nuisance with high probability of compliance.
<u>Reliability</u>		
o Potential for poor performance or failure of system components (assuming design criteria represent actual field conditions)	Reliability is high. All facilities other than existing wells will be new. Reliability will be the same as Alternative 7 when new wells are replaced.	Reliability is high and would increase with a new cap
o Operational flexibility to address variations between design criteria and actual field conditions	With the exception of existing well locations, great flexibility, installation of new system no tied to existing header configurations or flare facilities. Easier installation of pile driven and single completion wells improves flexibility	Use of oversize headers allows additional well installation

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**Table 3**  
**IMPLEMENTABILITY EVALUATION OF ALTERNATIVES**

<u>Implementability Criteria</u>	<u>Alternative 0</u>	<u>Alternative 1</u>	<u>Alternative 2</u>
<u>Technical Feasibility</u>			
o Use of proven technology	N/A	Gas extraction wells and gas flaring are currently used.	Gas extraction wells and gas flaring are currently used.
o Ease of installation and time to implement	N/A	N/A	Replacement and improvement of existing systems can be implemented within 1 year of project initiation.
o Short-term construction-related environmental impacts	N/A	N/A	Noise, LPG emissions, odors, and dust during excavation to be controlled.
o Short-term construction-related health risks	N/A	N/A	Potential contact with hazardous wastes. Requires appropriate health and safety procedures.
o Operational problems and considerations	N/A	Header line breakages; inadequate condensate collection; corrosion of equipment; lack of adequate safety and backup systems.	Problems should be reduced by recommended improvements.
<u>Availability of Technology</u>	N/A	N/A	Demonstrated technology in LPG applications. Equipment for gas extraction and flaring system improvements is readily available.
<u>Operations and Maintenance</u>	N/A	Continuation of existing long-term operating, maintenance, and monitoring of LPG facilities and site.	Requires long-term operating, maintenance, and monitoring of LPG facilities and site.
<u>Administrative Feasibility</u>			
o Administration of operating, maintenance, monitoring, and reporting activities	N/A	Continuation of existing operations.	Continuation of existing operations.
o Permitting considerations	N/A	None.	None.

N/A = Not applicable



Table 3  
(Continued)

<u>Implementability Criteria</u>	<u>Alternative 3</u>	<u>Alternative 4</u>	<u>Alternative 5</u>
<u>Technical Feasibility</u>			
o Use of proven technology	Gas extraction wells and gas flaring are currently used.	Gas extraction wells and gas flaring are currently used.	Gas extraction wells and gas flaring are currently used.
o Ease of installation and time to implement	Straightforward; less than 2 years estimated for implementation. Well construction on slopes more difficult than perimeter wells.	Straightforward, but more wells installed; less than 2 years estimated for implementation. Well construction on slopes more difficult than perimeter wells.	Straightforward, but more wells installed; less than 2 years estimated for implementation. Well construction on slopes more difficult than perimeter wells.
o Short-term construction-related environmental impacts	Noise, LFG emissions, odors, and dust during drilling/excavation to be controlled.	Noise, LFG emissions, odors, and dust during drilling/excavation to be controlled.	Noise, LFG emissions, odors, and dust during drilling/excavation to be controlled.
o Short-term construction-related health risks	Potential contact with hazardous waste. Requires appropriate health and safety procedures.	Greatest potential for contact with hazardous waste. Requires appropriate health and safety procedures.	Greatest potential for contact with hazardous waste. Requires appropriate health and safety procedures.
o Operational problems and considerations	Problems are minimized by implementation of improvements recommended in Alternative 2.	Problems are minimized by implementation of improvements recommended in Alternative 2.	Problems are minimized by implementation of improvements recommended in Alternative 2.
<u>Availability of Technology</u>			
	Demonstrated technology in LFG applications. Equipment and supplies for gas extraction well installation and flare system expansion are available.	Demonstrated technology in LFG applications. Equipment and supplies for gas extraction well installation and flare system expansion are available.	Demonstrated technology in LFG applications. Equipment and supplies for gas extraction well installation and flare system expansion are available.
<u>Operations and Maintenance</u>			
	Requires long-term operating, maintenance, and monitoring of LFG facilities and site.  Requires special personnel safety procedures due to potential hazard associated with LFG.	Same as Alternative 3, but larger in scope due to larger system.	Same as Alternatives 3 and 4, but larger in scope due to larger system.
<u>Administrative Feasibility</u>			
	Alternatives 5 and 6 should include permits required for expanded flare station. Permits for Alternative 3 are incomplete.		

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Table 3  
(Continued)

<u>Implementability Criteria</u>	<u>Alternative 6</u>	<u>Alternative 7</u>	<u>Alternative 8</u>
<u>Administrative Feasibility</u>			
o Administration of operating, maintenance, monitoring, and reporting activities	Larger scope than Alternatives 1 and 2.	Larger scope than Alternatives 1, 2, 3, and 4.	Larger scope than Alternatives 1, 2, 3, and 4.
o Permitting considerations expanded gas flaring system.	SCAQMD permits required for	Same as Alternative 3.	Same as Alternative 3.
<u>Technical Feasibility</u>			
o Use of proven technology	Gas extraction wells and gas flaring are currently used at site. Boiler/steam turbine systems are widely employed.	Gas extraction wells and gas flaring are currently used at site.	Gas extraction wells and gas flaring are currently used at site. Boiler/steam turbine systems are widely employed.
o Ease of installation and time to implement	Same difficulty as Alternative 5; less than 2 years estimated for implementation.	Straightforward; more difficult than Alternatives 5 and 6 due to number of wells installed; less than 2 years estimated for implementation.	Straightforward; more difficult than Alternatives 5 and 6 due to number of wells installed; less than 2 years estimated for implementation.
o Short-term construction-related environmental impacts	Noise, LPG emissions, odors, and dust during drilling/excavation to be controlled.	Noise, LPG emissions, odors, and dust during drilling/excavation to be controlled.	Noise, LPG emissions, odors, and dust during drilling/excavation to be controlled
o Short-term construction-related health risks	Potential contact with hazardous waste. Requires appropriate health and safety procedures.	Potential contact with hazardous waste. Requires appropriate health and safety procedures.	Potential contact with hazardous waste. Requires appropriate health and safety procedures.
o Operational problems and considerations	Problems are reduced by implementation of improvements recommended in Alternative 2.	Problems are minimized by replacement of all existing facilities.	Problems are minimized by replacement of all existing facilities.
<u>Availability of Technology</u>	Same as Alternative 5. Boiler/steam turbine systems are readily available process equipment.	Same as Alternative 5.	Same as Alternative 5. Boiler/steam turbine systems are readily available process equipment.
<u>Operations and Maintenance</u>	Same as Alternative 5, but larger in scope.	Same as Alternative 5, but larger in scope.	Same as Alternative 5, but larger in scope.

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Table 3  
(Continued)

<u>Implementability Criteria</u>	<u>Alternative 6</u>	<u>Alternative 7</u>	<u>Alternative 8</u>
<u>Administrative Feasibility</u>			
o Administration of operating, maintenance, monitoring, and reporting activities	Larger scope than Alternative 5.	Same as Alternative 5.	Same as Alternative 6.
o Permitting considerations	Backup flaring systems must meet SCAQMD permitting requirements. Boiler NO <sub>x</sub> emissions are minimized by ammonia injection process; emissions can be verified after installation.	Flaring systems must meet SCAQMD permitting requirements.	Backup flaring systems must meet SCAQMD permitting requirements. Boiler NO <sub>x</sub> emissions are minimized by ammonia injection process; emissions can be verified after installation.

Table 3  
(Continued)

<u>Implementability Criteria</u>	<u>Alternative 9</u>	<u>Alternative 10</u>
<u>Technical Feasibility</u>		
o Use of proven technology	Gas extraction wells and gas flaring are currently used at site	Gas extraction wells and gas flaring are currently used at South Parcel
o Ease of installation and time to implement	Straightforward, less difficult than Alternative 7 due to fewer new well installations and easier installation methods; less than 2 years estimated for implementation	Easier installation methods; estimated less than 1-year time for implementation
o Short-term construction-related environmental impacts	Noise, LPG emissions, odors, and dust during drilling/ excavation to be controlled.	Noise, LPG emissions, odors and dust during drilling excavation would be controlled.
o Short-term construction-related health risks	Potential contact with hazardous waste. Requires appropriate health and safety procedures. Pile driven wells reduce potential for hazardous waste contact.	Potential contact with hazardous waste. Requires appropriate health and safety procedures.
o Operational problems and considerations	Problems are minimized by replacement of all existing facilities, excluding functional extraction wells.	Problems will be minimized with proper design of extraction wells.
<u>Availability of Technology</u>	Demonstrated technology in LPG applications. Equipment and supplies for gas extraction well installation and flare system construction are available.	Demonstrated technology. Equipment and materials readily available.
<u>Operations and Maintenance</u>	Requires long-term operation and maintenance, and monitoring of LPG facilities and site.  Requires special personnel safety procedures due to potential hazards associated with LPG.	Requires long-term operation and maintenance including monitoring. Requires trained personnel for safety procedures due to potential hazards associated with LPG.
<u>Administrative Feasibility</u>		
o Administration of operating, maintenance, monitoring, and reporting activities	Same as Alternatives 5 and 7	Same as other alternatives
o Permitting considerations	Same as Alternative 3	Same as other alternatives

## **SELECTED REMEDY - ALTERNATIVES 9 AND 10**

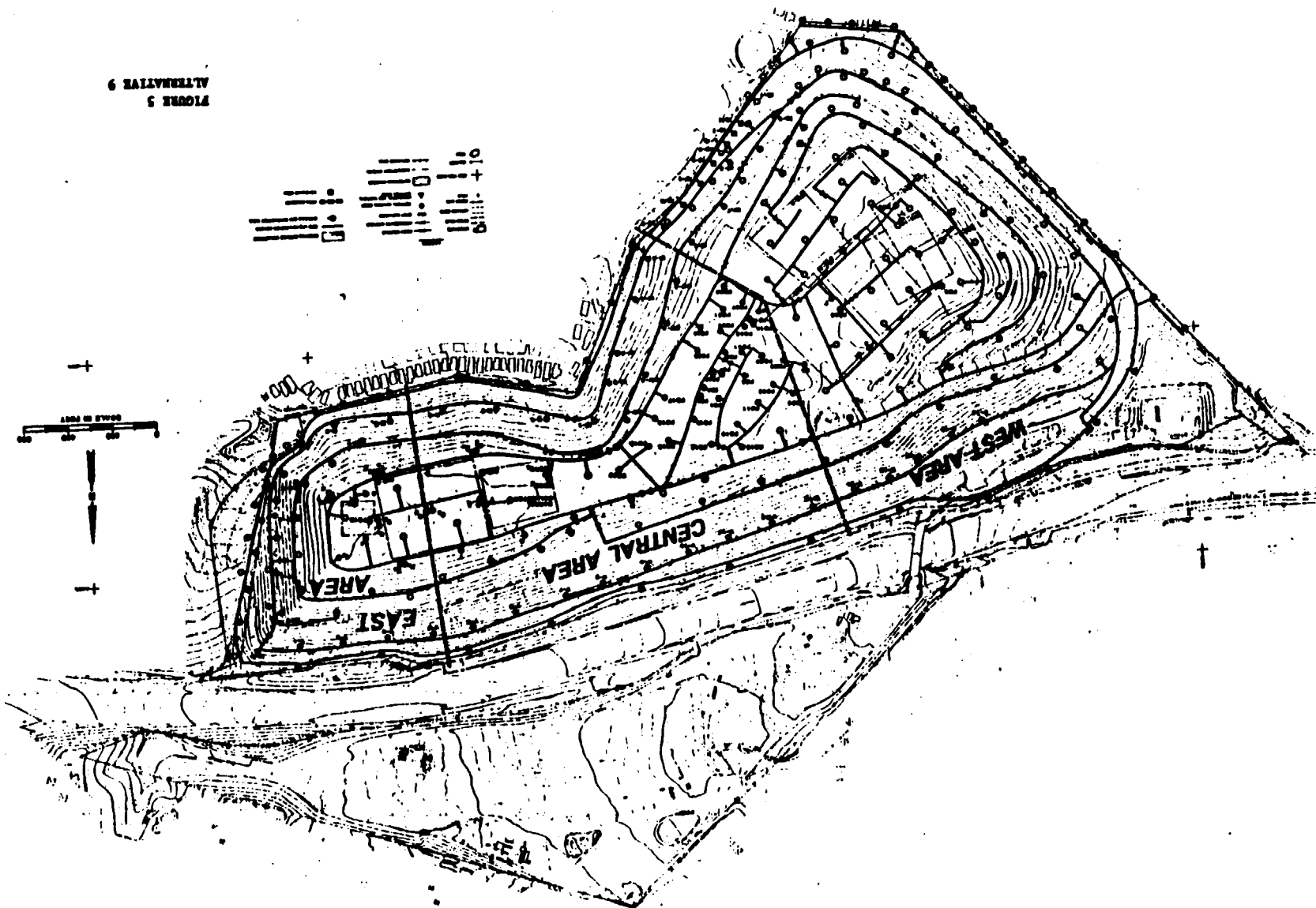
### **ALTERNATIVE NO. 9--MODIFIED REPLACEMENT ALTERNATIVE**

Although this alternative considers fewer new extraction wells than Alternative No. 7, it is designed to provide approximately the same level of protection by using existing extraction wells. This alternative includes the following major items:

- o Installing 58 new perimeter LFG extraction wells, as shown in Figure 5, with placement focused on minimizing offsite LFG migration.
- o Installing 48 pile driven wells on the top deck of the landfill with placement focused on maximizing source control of LFG.
- o Installing 50 shallow and 12 deep slope wells with placement focused on reducing surface emissions, and controlling intermediate to deep subsurface migration at the perimeter.
- o Installing new integrated perimeter and interior LFG headers (abovegrade).
- o Including functional existing gas extraction wells and gas monitoring probes.
- o Installing 58 multiple completion monitoring wells at the property boundary.
- o Installing landfill gas destruction facilities with a capacity of approximately 9,000 cfm, and an automated control station for the gas control system.
- o Installing abovegrade condensate sumps to collect condensate from gas headers.
- o Installing leachate pumps in gas wells to de-water saturated zones, and installing abovegrade leachate sumps.

The LFG extraction wells proposed in this alternative will be cross-tied such that all gas collected from the landfill can be mixed and sent to a unified gas destruction facility.

6 RAILWAY  
FIGURE 3



+  
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+

## **Well Construction**

Four different types of gas extraction wells have been considered and included in Alternative No. 9 for control of the South Parcel LFG problems. The selection of different types of wells for different locations was based on landfill geometry, refuse characteristics, subsurface geology, and the expected effectiveness in controlling LFG at specific locations identified earlier in the OUPS report.

Initially, emphasis will be placed on perimeter extraction wells along the west and east ends of the landfill, where the most severe migration problems have been identified. Perimeter gas extraction wells at these locations will be drilled to depths equal the elevations of deepest refuse within 1,000 feet from the site boundary. Additional perimeter extraction wells will be sequenced according to a phased approach discussed under "Phasing of Alternatives." Perimeter extraction wells will be constructed as multiple completion wells with three or more well casings and screens at three or more depth intervals.

Wells on the slopes, particularly on the benches, will be drilled to a depth of between 60 to 90 feet by a drilling and/or driving method. These wells will be constructed with a single well casing with perforations and gravel packing at the bottom half of the well. In addition, to assist in perimeter migration control, about 12 deep single-casing wells are planned to be installed at the first bench. These wells would be installed along the west and east ends of the landfill. Along these boundaries, it is expected that approximately every third slope well on the first bench will be a deep well. The depth of such wells would be approximately 175 feet. Specific design of these deep wells would depend on conditions encountered during drilling.

Additional gas extraction wells will be placed on the top deck. These wells will be pile driven. The depth of these wells will be extended below the elevation of 450 feet throughout the landfill. At the western end of the landfill, depths may vary due to the suspected liquid/leachate problem.

## **Expected Longevity of Gas Extraction Wells**

The expected longevity of each type of well discussed above depends on various landfill factors, quality of construction methods, and long-term operation and maintenance procedures.

Wells constructed within the refuse will experience wear and tear from the landfill settlement, corrosion and plugging of wells from landfill liquid/leachate, and from particulates/ sediment deposits clogging up well screens. Based on experience from the existing landfill gas extraction systems in Southern California, it is estimated that the wells within refuse will have an average life of 7.5 years. This estimate may be further revised based on actual drilling and construction experience encountered at site-specific locations.

Wells drilled within the native soil, specifically at the landfill perimeter, are expected to last longer. Average life expectancy of these wells is assumed to be 15 years. This expected longevity of the perimeter wells is based on information made available to EPA by the L.A. County Sanitation District.

As existing wells utilized by the South Parcel Alternative No. 9 require replacement, the location and design of the replacement will be optimized to improve performance.

The capital cost of Alternative 9 is estimated at approximately \$27 million, and annual operations and maintenance is estimated at \$2.3 million as shown in Table 4 (estimates are -30% to +50%).

#### ALTERNATIVE NO. 10--NORTH PARCEL SYSTEM

EPA's remedial investigation at the North Parcel found LFG within the landfilled portion of the site. This landfilled area contains approximately half a million cubic yards of refuse, and it is estimated that some gas will be produced for more than 30 years due to the continued anaerobic degradation of the refuse.

Based on the volume and depth of refuse, a conceptual layout of six gas extraction wells to control gas migration/emission from the North Parcel was prepared. (Figure 6 represents the schematic layout of the extraction system.) This extraction system will control existing and potential migration of gases from the property boundary and mitigate surface emissions from the landfilled portion of the North Parcel. This component includes the following major items:

- o Installing 6 single completion extraction wells to the depth of refuse (up to 50 feet).
- o Installing 1,500 feet of header lines.



**Table 4**  
**COST SUMMARY OF ALTERNATIVE NO. 9**  
**MODIFIED REPLACEMENT ALTERNATIVE WITH LFG FLARING**

<u>Cost Items</u>	<u>Short-Term Capital Costs (\$1,000's)</u>
LFG Gas Extraction System Improvements	
New Perimeter	\$8,000
New Interior	7,300
LFG Destruction System	
Type-Flare	900
Ancillary Items	
Protective Equipment	686
Decontamination and Disposal	28
Startup	90
Health and Safety	1,134
Construction-Related Equipment	858
Bid Contingency (5%)	949
Scope Contingency (10%)	1,899
Permitting and Legal (5%)	1,092
Services During Construction (8%)	1,747
Engineering Design (9%)	<u>2,221</u>
TOTAL (Rounded)	\$26,900
<u>Cost Item</u>	<u>Long-Term O&amp;M Costs (\$1,000's)</u>
New LFG System	<u>\$2,280</u>
TOTAL (Rounded)	<u>\$2,300</u>

**Note:** Order-of-magnitude level estimates (expected accuracy range of -30 to +50 percent) at annual operation and maintenance costs.

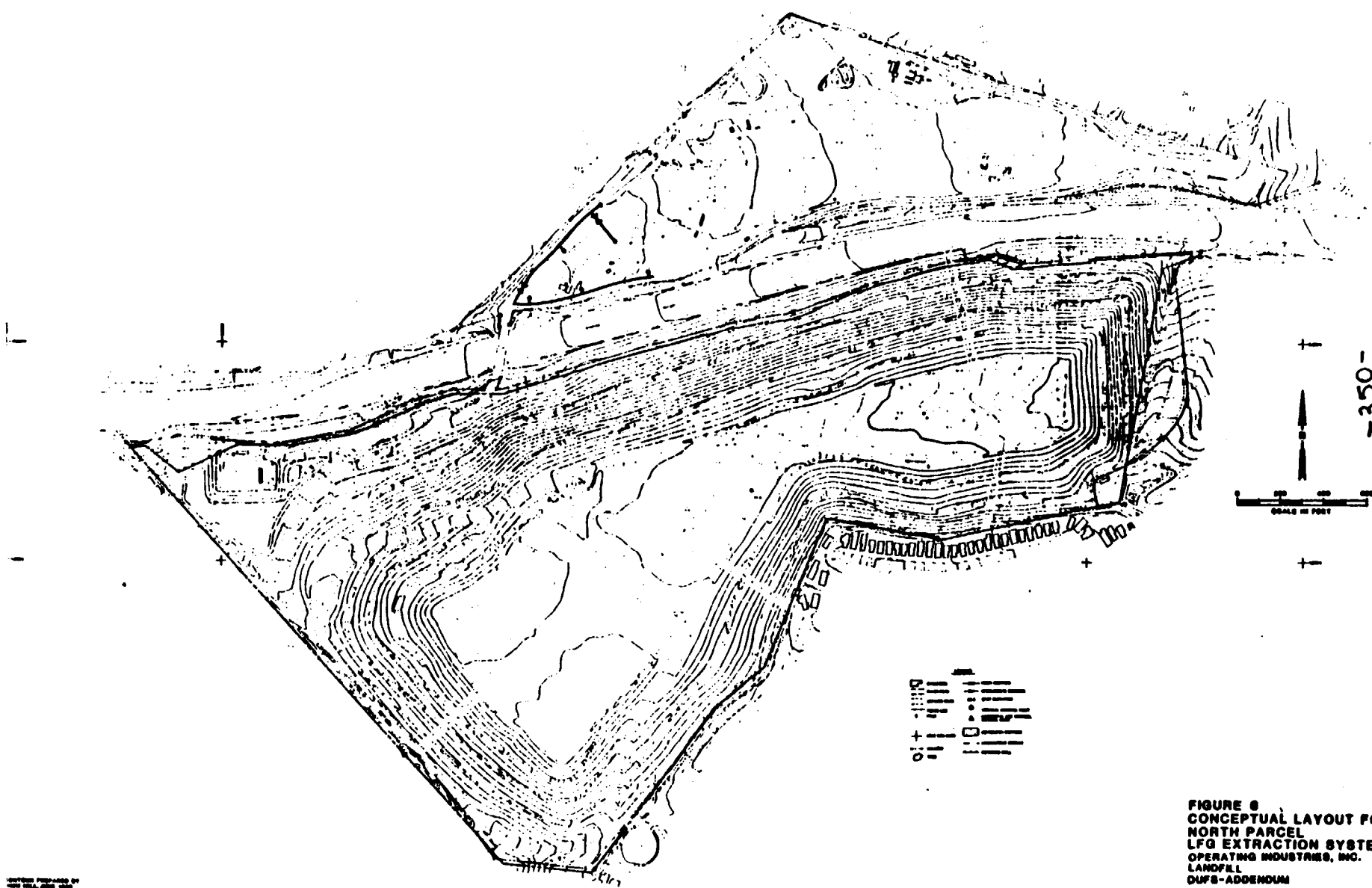


FIGURE 8  
 CONCEPTUAL LAYOUT FOR  
 NORTH PARCEL  
 LFG EXTRACTION SYSTEM  
 OPERATING INDUSTRIES, INC.  
 LANDFILL  
 DUP8-ADDENDUM

LFG collected by this component will be fed to the flare system included in Alternative 9. The expected quantity of gas to be collected by the extraction system under this alternative may vary between 9,000 and 14,000 cubic feet of methane per day. The capital cost of this alternative is estimated at \$400,000, and annual operations and maintenance is estimated at \$38,000 as shown in Table 5 (estimates are -30% to +50%).

#### **EMISSION ESTIMATES**

The landfill gas disposal technologies used by the gas control alternatives all involve thermal destruction of the gas. In order to estimate potential emissions from the gas destruction technologies, a review of South Coast Air Quality Management District (SCAQMD) source test data was performed. This data was from actual emissions tests performed by SCAQMD on similar technologies (i.e., flares, boilers, etc.) used at other landfills in southern California. Estimates of emissions per million Btus of LFG destroyed by each technology were developed from this data base.

In addition, potential emissions from flares and various resource technologies were calculated using the maximum gas extraction rate of approximately 136 million Btus per hour. Flare and internal combustion engine emissions were estimated using the maximum emission factor, since the mean emissions factor developed from many nonhazardous waste landfills was not considered representative of the situation at OII.

All of the LFG destruction technologies are estimated to exceed SCAQMD's new source review requirements for carbon monoxide (550 pounds per day) and nitrogen oxides (100 pounds per day) at the maximum gas extraction rates using the maximum emission factor. Therefore, EPA may be required to either establish sufficient additional controls on the proposed landfill gas flares to achieve these requirements, or consider alternative gas incinerator designs which would allow further emissions controls. This change constitutes a minor modification of the proposed remedy. Thermal destruction will still be utilized and this modification will not significantly affect the cost of the selected remedy. Additional control equipment for flare emissions could increase the cost of the flare facility by \$1 million. Use of alternative incinerator designs may increase the remedy costs by \$1 to \$2 million. Since the cost of the proposed remedy was previously estimated at \$73 million, with an accuracy range of -30% to +50%, the cost of the remedy is not significantly affected.

Table 5  
COST SUMMARY OF ALTERNATIVE NO. 10  
NORTH PARCEL SYSTEM

<u>Cost Items</u>	<u>Short-Term Capital Costs (\$1,000's)</u>
LFG Gas Extraction System Improvements	
New Interior	\$ 200
Ancillary Items	
Protective Equipment	30
Decontamination and Disposal	3
Startup	3
Health and Safety	2
Construction-Related Equipment	14
Bid Contingency (5%)	13
Scope Contingency (10%)	26
Permitting and Legal (5%)	15
Services During Construction (8%)	24
Engineering Design (9%)	<u>30</u>
TOTAL (Rounded)	\$400
	<u>Long-Term O&amp;M Costs (\$1,000's)</u>
<u>Cost Item</u>	
New LFG System	<u>\$38</u>
TOTAL (Rounded)	<u>38</u>

Note: Order-of-magnitude level estimates (expected accuracy range of -30 to +50 percent) at annual operation and maintenance costs.

If the emissions requirement for landfill gas destruction cannot practicably be achieved, EPA will invoke the waiver from these requirements under SARA, on the grounds that compliance with these requirements would cause more damage to human health and environment (by preventing collection and destruction of landfill gas at OII) than waiving them.

Initial EPA screening results indicate that exposure to the highest concentrations of pollutants would be expected within approximately 550 yards (one-half kilometer) from the site. Based on this initial screening, a location on the North Parcel farther away from nearby residents is considered to be the most suitable location for the LFG disposal equipment.

Additional modeling will be performed to account for the effects of local topography and meteorology on emissions from the LFG destruction equipment. Detailed modeling will be performed during the design phase to optimize disposal equipment placement. Source testing will be performed once a remedy is implemented in order to collect actual data on emissions and destruction efficiencies.

#### PHASING OF ALTERNATIVES

It is anticipated that the selected gas control remedy for the OII site will require a phased implementation in order to optimize protectiveness, implementability, cost-effectiveness, and consistency with the final remedy. A conceptual phased implementation approach is described below. Further consideration of the implementation strategy will be required during design and construction of the remedy, and may require modification of this conceptual approach.

##### PHASE 1A

- o The purpose of Phase 1A is to implement perimeter migration control in the areas of highest priority (along the west, south and east boundaries of the South Parcel) to reduce the potential for explosive levels of methane gas to accumulate in nearby residential neighborhoods. This would be the initial phase of perimeter control in these areas, to be complemented by additional well installations, if necessary during Phase 2.
- o The perimeter control system will be installed in areas accessible around the boundary of the site (this excludes most of the boundary along the Pomona freeway where no access

road exists). The perimeter system will be designed and installed to be compatible with the final cover for the South Parcel.

- o The perimeter system includes multiple completion gas wells (upper and lower screened intervals) and multi-depth gas monitoring probe installations. Extraction wells will be installed in the air dike area. Any potential benefits of using the air dike system in conjunction with the extraction wells will be explored.
- o The flare station site will be prepared and a foundation constructed which will be adequate to handle the anticipated equipment needs of the entire gas remedy. Flares and hardware components to provide adequate capacity for the initial phase will be installed.
- o Any existing systems included in the selected remedy would also be included in the implementation of Phase 1A.

#### PHASE 1B

- o The purpose of this phase will be to increase the effectiveness of source control at the site. This increased source control may improve perimeter migration control, particularly in the deeper areas of gas migration, and reduce surface emissions.
- o Additional interior source control wells will be installed on the top deck of the South Parcel. Installation will be designed to be compatible with the final cover for the South Parcel.

#### PHASE 2

- o The purpose of this phase will be to improve gas control in the priority areas of the landfill perimeter. Cost-effectiveness will be optimized by limiting the number of wells installed during the initial phase, and following up with installation of additional wells only where required to achieve gas migration control during Phase 2.
- o Installation of probes and wells in Phases 1A and 1B will also be phased. Additional gas wells and gas probes will be installed based on an evaluation of the effectiveness of the initial gas wells. These additional wells will be installed in areas where gas migration has not been controlled, and

where it is considered to be prudent and consistent with the final remedy to install these wells. Additional flares and hardware will be installed as necessary.

#### **PHASE 3**

- o The purpose of this phase will be to increase control of areas of high surface emissions prior to placement of the final cover in order to reduce the potential for exposure to the LFG in the ambient air.
- o A limited number of shallow slope wells will be installed in areas of particularly high surface emissions. These wells will be designed to be consistent with the final remedy for the site. A limited number of wells will be installed during this phase, since application of final cover should increase the effectiveness of individual wells. Additional flares and hardware will be installed at the flare station as necessary.

#### **PHASE 4**

- o As the final cover (selected in a future ROD) is installed at the site, it will be integrated with the existing control systems. The perimeter wells will be installed along the boundary with the Pomona Freeway. Additional perimeter wells, slope wells (shallow and, if necessary, deep), and top deck wells will be installed to achieve the CWMB requirement of less than 5 percent methane at the perimeter, and the SCAQMD 1150.1 surface emissions requirements of less than 50 ppm total organic compounds averaged over the surface and less than 500 ppm methane at any point on the surface.

#### **PHASE X**

- o Expand the systems if necessary to control toxic and carcinogenic compounds in the gas to health based levels. The purpose of this phase will be to provide additional LFG control in areas where levels of hazardous LFG constituents are still being emitted at concentrations that could cause significant impacts to the public health.

## PHASE Y

- o Install Alternative 10 on the north parcel, once it is determined that the north parcel waste mass will remain in place. This phase will allow integration of the gas control remedy for the north parcel with the south parcel control system.

The selected remedies described in this section are conceptual. Changes in the actual design and phasing approach may occur during design and construction. In addition, although analysis contained in the Feasibility Study and the Administrative Record indicated that resource recovery options were not expected to be cost-effective, EPA may decide to implement a resource recovery component if, in the future, it is determined to be cost-effective, and consistent with EPA's other decision making criteria.

## STATUTORY DETERMINATIONS

### Protection of Human Health and the Environment

The selected remedy will eliminate the risk of fire or explosion due to landfill gas accumulating offsite by controlling methane concentrations to less than 5 percent at the landfill boundary. Surface emissions and subsurface landfill gas migration will be reduced as will the potential for exposure to toxic and/or carcinogenic compounds contained in the landfill gas at OII. The landfill gas destruction facilities will be located and designed to provide adequate protection of human health and the environment from emissions which could be expected to occur. Monitoring of the selected remedy, once operational, will occur as part of operations and maintenance, the overall RI/FS, and/or 5-year remedy reviews, to ensure adequate protection of human health and environment.

Short-term risks associated with the remedy include risks posed by well installation, and operation and maintenance of the system, with the potential for exposure of workers to explosive levels of methane and high levels of toxic and/or carcinogenic compounds in the landfill gas. Landfill gas emissions from drilling activities should dissipate rapidly and are not expected to cause unacceptable short-term risks offsite. Health and safety activities will be conducted during construction, and operations and maintenance activities to ensure adequate protection of human health and environment. Other short-term risks during construction should be similar to those posed by most



heavy construction projects. Construction activities will be conducted in accordance with applicable health and safety requirements.

Gas wells and probes will be designed to reduce the potential for cross-contamination of groundwater during construction and operation. Collection of leachate from saturated zones encountered by gas wells, and condensate collection from gas pipelines should reduce potential releases of contaminated liquids from the site.

The potential for landfill gas to contaminate groundwater will also be reduced by the increased gas collection afforded by the selected remedy.

No unacceptable short-term risks or cross-media impacts will be caused by implementation of the remedy.

#### Attainment of ARARs

The selected remedy will be designed to attain the following applicable regulations unless otherwise noted. ARARs were identified from Federal, as well as more stringent promulgated State environmental and public health laws.

Federal regulations apply to the leachate and condensate that will be collected from the gas control system. These liquids will be treated to the POTW pretreatment requirements in compliance with the Clean Water Act at an onsite treatment facility constructed under EPA's Leachate Management Remedial Action. Prior to the treatment plant construction these liquids will be transported to an offsite treatment facility in compliance with the Department of Transportation (DOT) Rules for the Transportation of Hazardous Materials, and in compliance with EPA's offsite disposal policy.

The State of California has the following ARARs which are enforced by various agencies:

1. Hazardous Waste Control Law (Administered by CA DOHS under Title 22, Division 4, Chapter 30) - The hazardous waste management requirements of this law are applicable and will be attained. The closure and post closure requirements will not be attained by this operable unit. A waiver is being invoked for this operable unit since closure and post closure requirements will be addressed by subsequent remedial actions at the site.

2. **Solid Waste Management and Resource Recovery Act of 1972 (Administered by the California Waste Management Board and Los Angeles DOHS under Title 14, Division 7) - Requirements for monitoring and reporting for landfill gas migration, and migration control under Title 14, Section 17705 - Gas Control are applicable. A waiver is being invoked for the Title 14 closure and post closure requirements since they will be addressed by subsequent remedial actions at the site.**
3. **California Air Pollution Control Regulations - Ambient Air Quality Standards for Hazardous Substances (Administered by California Air Resources Board under Title 17, Section 70200.5) - Applicable standard for ambient concentrations of vinyl chloride not to exceed 10 ppb over a 24-hour period.**
4. **South Coast Air Quality Management District Rules and Regulations (The California Air Resources Board delegates state authority to SCAQMD to enforce air quality in the local basin.)**

#### **Regulation IV - Prohibitory Rules**

**Rule 401 - Visible Emissions - Limits visible emissions from any point source to Ringleman No. 1 or 20 percent opacity for 3 minutes in any hour.**

**Rule 402 - Nuisance - This rule prohibits the discharge of any material (including odorous compounds) that cause injury, detriment, nuisance, or annoyance to the public, businesses, or property or endangers human health, comfort, repose, or safety. The selected remedy will require application of the final cover in order to adequately control odors at the site. Therefore a waiver is invoked for this ARAR since it will be addressed in subsequent remedial actions.**

**Rule 403 - Fugitive Dust - This rule limits onsite activities such that concentrations of fugitive dust at the property line shall not be visible and the downwind particulate concentrations shall not exceed 100 micrograms per cubic meter above upwind concentrations.**

**Rule 404 - Particulate Matter - This rule limits particulate emissions to a range of 0.010 to 0.196 grain per standard cubic foot depending on the volume of total stack gases.**

**Rule 407 - Liquid and Gaseous Air Contaminants - This rule limits carbon monoxide emissions to 2,000 ppm and sulfur dioxide emissions to 500 ppm. The sulfur dioxide limit does not apply if the fuel meets the provisions of Rule 431.1.**

**Rule 409 - Combustion Contaminants - This rule limits the emission of combustion contaminants to 0.10 grain per standard cubic foot at 12 percent carbon dioxide.**

**Rule 431.1 - Sulfur Content of Gaseous Fuels - This rule limits burning of fuel gas that has greater than 800 ppm hydrogen sulfide unless stack gases are cleaned to below the equivalent concentration.**

#### **Regulation XI - Source Specific Standards**

**Rule 1150.1 - Control of Gaseous Emissions from Active Landfills - This rule requires installation of a landfill gas control system and combustion, treatment and sale, or other equivalent method of landfill gas disposal. The rule requires perimeter landfill gas monitoring probes to evaluate offsite migration. It also limits concentrations of total organic compounds to 50 ppm over a certain area of the landfill, and limits maximum concentration of organic compounds (measured as methane) to 500 ppm at any point on the surface of the landfill. A final cover will be required to comply with this Rule and, therefore, a waiver is invoked for this operable unit because subsequent remedial actions will attain this ARAR.**

#### **Regulation XIII - New Source Review**

**Regulation 13 requires that whenever a permit is required for a new piece of equipment or modification to an existing piece of equipment at a facility or a site, that emissions be controlled using best available control technology (BACT) and that emissions be offset by other emissions reductions at the same facility or other nearby facilities. BACT is a series of emissions limits, process, and equipment specific requirements [see definition at 1301(e)]. The SIP is reviewed by the State Air Resources Board and the EPA for compliance under the Federal Clean Air Act. The net allowable cumulative increase in emissions are detailed in SCAQMD Rule 1303 and 1306.**

Under SCAQMD Rule 1304(b)(2), there is an exemption from the offset requirements at 1303(b)(2)(C) for a landfill gas control or processing facility. The exemption waives the requirement to find enough criteria emissions offsets if the owner or applicant for the permit has: (1) provided all required offsets available by modifying sources owned; or (2) demonstrated to the satisfaction of the SCAQMD Executive Officer that the owner or applicant neither owns, nor operates other facilities within the district that could be modified to provide such offsets.

The State Implementation Plan (SIP) is reviewed by the State Air Resources Board and the EPA for compliance under the Federal Clean Air Act. However, EPA has not approved the exemption from the offset requirement, nor is such an exemption approvable as part of the SIP (40 CFR 51.165). Therefore, the offset requirement as contained in the SIP applies.

Moreover, on August 31, 1988, a moratorium on construction or modification of major stationary sources of carbon monoxide and volatile organic compounds went into effect (53 FR 1780; 40 CFR 52.24). A major source is defined as one which emits or has the potential to emit in excess of 100 tons per year of a specified pollutant. Flares may be considered to have the potential to emit in excess of 100 tons of CO per year.

#### Additional ARARs for Resource Recovery Equipment

##### 1. SCAQMD Regulation IV - Prohibitory Rules

Rule 474 - Fuel-Burning Equipment Oxides of Nitrogen - This rule limits the concentration of oxides of nitrogen to a range of 125 to 300 ppm for gaseous fuels depending on maximum gross heat input.

Rule 476 - This rule applies to boilers larger than 50 million BTU per hour. Oxides of nitrogen may not exceed 125 ppm, combustion contaminants may not exceed 11 pounds per hour and 0.01 grains per standard cubic foot.

### Future ARARs

Because of the failure of the South Coast Air Basin to attain the ozone and carbon monoxide standard by the statutory deadline, EPA has been required by the courts to promulgate a Federal Implementation Plan (FIP) which would expeditiously achieve those standards. Since EPA has not yet proposed a FIP, no FIP requirements apply to the OII gas control remedial action at the present time. However, EPA may promulgate a final FIP within one year. The FIP will likely contain additional stringent requirements for new and existing sources. Some of these requirements may apply to the OII gas control remedial action. Also, such requirements may constitute ARARs at the time of the 5-year review, and may necessitate further controls.

### Cost-Effectiveness

The selected remedy affords overall effectiveness proportional to its cost such that the remedy represents a reasonable value for the money. When the relationship between cost and overall effectiveness of the selected remedy is viewed in light of the relationship between cost and overall effectiveness afforded by the other alternatives, the selected remedy appears to be cost-effective. The selected remedy provides protection of public health and environment that exceeds that of Alternatives 0 through 4, and is equivalent to the protection offered by Alternatives 5 through 8 (when integrated with Alternative 10). The two resource recovery alternatives (6 and 8) were found not to be cost-effective. The benefit to cost ratios for these two alternatives were less than one, indicating that the net costs of implementation and operation and maintenance would be increased rather than reduced by these alternatives. The 30 year present worth costs of Alternatives 5 and 7 (combined with Alternative 10 to provide similar degrees of protection) are estimated at \$91 million and \$97 million respectively compared to \$73 million for the selected remedy. The estimated present worth cost of the selected remedy is equivalent to the estimated present worth cost of Alternative 4 combined with Alternative 10, which provides less control of subsurface gas migration and surface emissions (with the potential for explosive levels of landfill gas to continue migrating offsite) than the selected remedy.

### Utilization of Permanent Solutions and Alternative Treatment (or Resource Recovery) Technologies to the Maximum Extent Practicable

The selected remedy utilizes permanent solutions and treatment or resource recovery technologies to the maximum extent practicable. The landfill gas which is collected by the selected remedy will be incinerated in flares. The flares or other gas incinerators represent a permanent solution for landfill gas destruction because the methane is burned and over 99 percent of the hazardous constituents in the gas stream are destroyed. Most of the remaining emissions from the flares are susceptible to ultra-violet degradation.

Several resource recovery options were evaluated in the Feasibility Study, however, it was determined not to be practicable to implement resource recovery technologies at this time. Resource recovery was determined not to be practicable due to the local utility company's (Southern California Edison) electrical capacity surplus, and the low anticipated electrical buy-back rates during the life of a resource recovery project. Other resource recovery technologies which did not involve electrical generation were also evaluated in the FS but were found not to be practicable due to high cost, technical feasibility, market considerations, etc.

If, in the future, the situation changes and resource recovery becomes a viable option at the site, the EPA will reconsider implementing a resource recovery component.

### Preference for Treatment as a Principal Element

The selected remedy satisfies the preference for treatment to address principal threats posed by the site (within the scope of the operable unit). It is estimated that 90 percent of the methane gas produced at the site (as well as the associated toxic and carcinogenic compounds contained in the gas stream) will be collected by the selected remedy. This represents a 78 percent reduction in the volume of methane gas currently escaping from the site. The gas will be incinerated using landfill gas flares or other incinerators which have a destruction efficiency of over 99 percent for most of the hazardous compounds in the landfill gas. In addition, leachate and condensate (hazardous liquids) collected by the gas control system will be treated under EPA's Leachate Management Remedial Action. Therefore, the selected remedy will reduce the toxicity, mobility, and volume of the landfill gas, leachate, and condensate through the use of extraction, collection, and treatment.

Additional information concerning EPA's remedy selection criteria is included in the Summary of Comparative Analysis of Alternatives Section of this ROD, and in the OUPS, and the Administrative Record.

## DECLARATION

### SITE NAME AND LOCATION

Operating Industries, Inc. (OII)  
Monterey Park, California

### STATEMENT OF BASIS AND PURPOSE

This decision document presents an amendment to the remedial action selected on September 30, 1988 for the Gas Migration Control Operable Unit at the Operating Industries, Inc. site in Monterey Park, California. The amended remedy was chosen in accordance with CERCLA, as amended by SARA, and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision to amend the previously selected remedial action is based on the administrative record for this site operable unit.

The State of California concurs with the amended selected remedy.

### ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this amended Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

### DESCRIPTION OF THE AMENDED SELECTED REMEDY

The amended Gas Migration Control ROD at the OII site addresses the landfill gas (LFG) migration control and landfill cover. The major component of this amendment is the addition of landfill cover to the previously selected gas migration control remedy.

The major components of the Gas Migration Control ROD as amended include:

- o Landfill cover designed to: (1) reduce surface gas emissions and odors; (2) prevent oxygen intrusion into the refuse; (3) prevent surface water infiltration; (4) provide erosion control; and (5) improve site aesthetics;



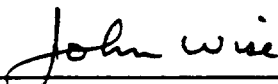
- o Perimeter LFG extraction wells, with placement focused on minimizing off-site LFG migration;
- o LFG extraction wells on the top deck of the landfill, with placement focused on maximizing source control of LFG;
- o Shallow and deep slope wells with placement focused on reducing surface emissions and controlling intermediate to deep subsurface migration at the perimeter;
- o Integrated above-grade LFG headers and condensate sumps;
- o LFG monitoring wells at the site boundary;
- o Upgraded thermal destruction facility for landfill gas; and
- o Pumps in appropriate gas wells, with above-grade collection sumps, to de-water saturated zones.

The amended gas control remedial action will be integrated with the two additional operable units, Site Control and Monitoring, and Leachate Management now being implemented.

#### **STATUTORY DETERMINATION**

The amended remedy selected is protective of human health and the environment, is designed to comply with Federal and State requirements that are legally applicable or relevant and appropriate to the remedial action, or a waiver is justified, and is cost-effective. This remedy uses permanent solutions and alternative treatment technologies, to the maximum extent practicable. The gas control and landfill cover remedy selected by the amended decision document satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element.

As this remedy will result in hazardous substances remaining on-site above health-based levels, a review will be conducted each five years after the commencement of the final remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

  
 Daniel W. McGovern *for*  
 Regional Administrator  
 EPA, Region IX

9.28.90  
 Date

## **AMENDMENT TO DECISION SUMMARY**

### **OPERATING INDUSTRIES, INC. GAS MIGRATION CONTROL OPERABLE UNIT RECORD OF DECISION**

#### **SCOPE AND ROLE OF OPERABLE UNIT**

The Gas Migration Control Operable Unit Record of Decision (hereinafter referred to as the "original gas ROD") at the Operating Industries, Inc. (OII) Superfund site in Monterey Park, California, is being amended to include the design and construction of landfill cover. EPA signed the original gas ROD for this operable unit on September 30, 1988. A copy of the original gas ROD is attached. EPA is addressing the problem of landfill gas (LFG) as an operable unit to expedite the LFG and cover remedial action prior to the selection and implementation of the overall final remedial action for the site.

Integration of the gas control remedy with landfill cover is preferred due to technical and economic advantages resulting from concurrent design and construction, and because an integrated approach will provide for protection of public health and the environment in a shorter time period. Landfill cover is required to: (1) reduce gaseous surface emissions and associated odor; (2) minimize oxygen intrusion into the refuse; (3) reduce surface water infiltration and the subsequent formation of leachate; (4) minimize slope erosion; and (5) improve site aesthetics.

The amended remedy retains the primary components of the original gas ROD; however, the addition of a landfill cover may affect certain elements of the design. For example, it is possible that a different number of wells than that specified in the original gas ROD will be necessary to control landfill gas. Similarly, factors such as well spacing, depth and type will be impacted by the addition of cover and will be reevaluated at the time of design.

The original gas ROD states that the decision to place landfill cover was deferred due to a lack of site-specific knowledge. Additional information about the existing landfill cover and refuse characteristics is now available as a result of the ongoing Remedial Investigation and EPA's experience from operation and maintenance of the landfill systems over the past three years (as part of the Site Control and Monitoring operable unit remedial action).

The addition of landfill cover is an amendment to the remedy selected for the third operable unit, Gas Migration Control, at the OII site. Two previous RODs for Site Control and Monitoring and Leachate Management were signed on July 31, 1987 and November 16, 1987, respectively. The ongoing Remedial Investigation

Feasibility Study (RI/FS) for the overall site remedy is currently scheduled for completion in 1993.

### SITE DESCRIPTION

A site description is included in the original gas ROD. The following additional information is pertinent to the selection of landfill cover and its design.

More than 50 years of continuous rainfall data exist from two Los Angeles County Flood Control District (LACFCD) weather stations near the site. The average annual rainfall is approximately 16 inches, with a maximum annual rainfall of approximately 37 inches in 1982-3. Approximately 90 percent of the annual rainfall occurs during the 6-month period of November through April. The estimated probable maximum precipitation (PMP) is estimated to be about 21 inches for a 24-hour storm and 35 inches for a 72-hour storm (Bureau of Reclamation, 1974).

EPA estimates that the OII landfill settlement rates ranged from 3 to more than 4 feet per year between 1974 and 1983. Settlement rates observed from December 1987 to December 1988 were slightly greater than 2 feet per year. Additionally, the upper 10 to 30 feet of existing cover and refuse appear to be undergoing downslope creep at a rate of 2 to 9 inches per year. Geotechnical monitoring using inclinometers, piezometers, surface monuments, and seismic monitoring stations at various locations around the landfill provides additional information regarding the static and dynamic properties of the refuse prism and existing cover.

### SITE HISTORY AND ENFORCEMENT ACTIVITIES

The original gas ROD contains a chronology of site enforcement activities through 1988. EPA has undertaken the following enforcement activities since September 1988:

- |           |  |
|-----------|--|
| May 1989  | A Partial Consent Decree (CD) between the United States, the State of California, and approximately 120 Potentially Responsible Parties (PRPs) was entered in the District Court for the Central District of California, <u>United States, et al v. Chevron Chemical, et al.</u> The Partial Consent Decree resolved claims for some State and Federal past costs, EPA oversight costs, and the implementation of the first two operable units, Site Control and Monitoring and Leachate Management. |
| July 1989 | EPA sent General Notice letters to approximately 91 additional PRPs representing an additional five percent by volume of the   |

manifested liquid wastes.

The generators noticed to date represent approximately 85% by volume of the manifested liquid waste.

March 1990 EPA extended an offer to the 91 PRPs noticed in July 1989 and to previous nonsettlers for settlement of the same issues as the first CD (past costs to June 1, 1988, liability for the first two operable units, and EPA oversight cost for the two OUs). The offer closed August 3, 1990. The settlement will result in a Second Partial Consent Decree.

#### COMMUNITY PARTICIPATION

Pursuant to the requirements for public participation set forth in Sections 113(k)(2)(B)(i-v) and 117 of CERCLA, EPA conducted the following activities for the ROD amendment:

- o EPA mailed the amended Proposed Plan (dated December 1989), to approximately 1600 interested parties. The amended Proposed Plan presented the preferred alternative of addition of landfill cover to the previously selected gas control remedy.
- o A notice of the release and mailing of the Proposed Plan, the time and place of the public meeting, and the dates for the public comment period was published in the Los Angeles Times, San Gabriel edition, on December 15, 1989.
- o The public comment period opened on December 11, 1989 and closed on January 12, 1990. Documents from the Administrative Record were placed in the site information repositories for public review during the comment period.
- o On January 4, 1990, EPA held a public meeting at a high school near the site to discuss the alternatives evaluated, to present the amended preferred alternative, and to provide an opportunity for public comment. During this meeting EPA solicited written and verbal comments and provided responses to the comments. A transcript of the public meeting, including comments and responses, is part of the Responsiveness Summary for the ROD Amendment.
- o EPA received two sets of written comments during the public comment period and addresses these comments in the attached Responsiveness Summary for the ROD

## **Amendment.**

### **SUMMARY OF SITE CHARACTERISTICS**

A summary of the site characteristics relating to the landfill gas control system is included in the original gas ROD. An additional discussion of site characteristics relating to landfill cover is presented below.

The OII landfill is divided by the Pomona Freeway into two areas, a south parcel and a north parcel. The south parcel is approximately 145 acres in size and is characterized by 43 acres of relatively flat top deck and 102 acres of sloped areas. The slopes have two to three intermediate bench roads, 10 to 12 feet wide, to allow access and slope maintenance. Total slope heights vary from 100 to 200 feet with average slope angles ranging from less than 4H:1V (Horizontal:Vertical) to as steep as 1.5H:1V. Locally, slopes do exceed 1.5H:1V in steepness. The majority of the 145-acre south parcel was used for waste disposal whereas approximately 15 acres of the western area of the north parcel were used for waste disposal.

The 145-acre south parcel of the landfill is bounded by the Pomona Freeway to the north, business and residential areas to the west and south, and an oil field to the east. The majority of the perimeter of the landfill abuts the freeway or residential areas which severely limits any expansion of the landfill boundaries to decrease the steepness of the slopes.

The maximum vertical thickness of the landfill on the south parcel is approximately 330 feet. The top of the landfill ranges from 70 to 225 feet above the adjacent ground surface with the elevation of the top deck averaging approximately 620 to 640 feet above mean sea level (msl). The lowest elevation of the bottom of the landfill is estimated to be approximately 300 feet above msl.

The landfill is currently covered by a soil layer of variable thickness which ranges from nearly 0 feet to 25 feet. The cover tends to be thicker on the top deck and thinner on the slopes and consists of varying amounts of clay, sand, and silt. The engineering characteristics of the cover are highly variable and, generally, are not adequate for landfill closure. Surface cracking, depressions, and evidence of erosion exist at many locations around the landfill. The primary deficiencies of the existing cover are that it does not: (1) prevent gaseous surface emissions; (2) prevent oxygen intrusion into the refuse; (3) limit infiltration of surface water; or (4) provide for adequate erosion control and stormwater management.

Landfill gas that is not adequately controlled by the gas control system or by the landfill cover currently in place is

released by venting through the landfill cover, resulting in unacceptable surface emissions of landfill gas on- and off-site. Excessive surface emissions have been documented by grid survey data from the landfill surface. On-site areas with the highest levels of surface emissions have historically been on the slopes. The slopes have a thinner existing cover and have experienced significant erosion which further increases the amount of gaseous surface emissions. As the landfill refuse settles, the resulting cracks and fissures also act as a preferential pathway for surface emissions.

Historically, subsurface fires have been a recurring problem at the OII landfill. These fires have resulted from oxygen intrusion in combination with the high temperatures created during anaerobic decomposition of the refuse. The negative pressure (vacuum) necessary for the operation of gas extraction wells draws oxygen through the surface of the landfill, providing a source of oxygen within the refuse. Another major source of oxygen is supplied by an air dike injection system on the western border of the landfill, designed by OII to inject a curtain of compressed air into the ground to create a barrier to subsurface LFG migration.

Evidence of subsurface fires (e.g., elevated gas well temperatures) has existed for several years in some areas of the landfill. These fires can produce voids within the landfill that, upon collapse, may result in surface settlement depressions and the release of landfill gas. The reduction of oxygen intrusion requires the replacement of the air dike system with gas extraction wells and/or a decrease of the gas extraction system vacuum. Merely decreasing the system vacuum, given the current inadequacy of the existing gas extraction system, would result in a significant and unacceptable increase in off-site gas migration.

Oxygen intrusion into the refuse has also lowered the percent combustibles of the gas stream in the landfill gas extraction system, which could subsequently reduce the destruction efficiency during incineration. In existing areas of thin cover, the vacuum system applied to the gas extraction wells has been decreased or shut off due to elevated temperatures or poor gas quality, thus reducing the radius of influence of the well and the volume of gas extracted. The placement of landfill cover facilitates the extraction of high-quality LFG and will allow the system to operate with maximum efficiency.

The existing landfill cover is highly variable in its thickness and permeability and in its ability to prevent surface water infiltration. The lack of adequate cover allows surface water from rainfall and site irrigation to percolate through the thin cover, cracks, or fissures into the refuse prism. Left uncontrolled, the liquids percolate through the refuse and

increase the amount of leachate in the landfill.

In addition to providing a physical barrier for gaseous surface emissions, oxygen intrusion, and surface water infiltration, the landfill cover forms the physical base for the stormwater management and erosion control systems at the landfill. The site drainage system currently consists of concrete-lined or clay-lined ditches along the toe of the intermediate slopes and on the top deck which drain to asphalt inlet and drop structures. Surface drainage is conveyed off-site in approximately ten locations around the south parcel. Substantial amounts of surface water are conveyed along the shoulder of access roads. Poor control of surface runoff has resulted in significant erosion of cover soil on slopes and access roads.

The existing drainage system is inadequate to prevent slope erosion and off-site sediment transport. An hydrologic analysis is being conducted as part of the Site Control and Monitoring (SCM) remedial action to assist in the design of a comprehensive stormwater management system. Improvements to the site drainage system conducted as part of SCM will be incorporated into the design and construction of the stormwater management system component of landfill cover.

#### **SUMMARY OF SITE RISKS**

A discussion of site risks is included in the original gas ROD. The Preliminary Risk Assessment for this operable unit demonstrated the need for landfill gas migration control and landfill cover to stabilize the site, to minimize further contaminant migration, and to quickly achieve significant risk reduction. The Preliminary Risk Assessment is found in Volume 1 Text, Public Comment Draft, Operable Unit Feasibility Study for Landfill Gas Migration Control, at page 4-10.

#### **DESCRIPTION OF ALTERNATIVES**

This amendment presents an additional alternative, Alternative 11, for evaluation and comparison with Alternatives 1 through 10 presented in the original gas ROD. The addition of this alternative is the result of public comment on the original gas ROD and additional site-specific knowledge now available to EPA as a result of its presence on-site performing a RI and conducting SCM for the last three years.

Alternative 11 consists of the landfill gas control remedy previously selected in the original gas ROD with the addition of design and construction of landfill cover. The Operable Unit Feasibility Study for Landfill Gas Migration Control, in conjunction with the "Technical Memorandum of Cost Estimates for Landfill Cover Concepts RI/FS," provides a thorough discussion of

the integrated gas control and landfill cover alternative. A summary of the components for Alternative 11 is included below.

#### **TREATMENT COMPONENTS**

Alternative 11 includes the treatment components specified for Alternatives 9 and 10 which were presented in the original gas ROD. Alternative 11 provides for the extraction and thermal destruction of an estimated 90 percent of the landfill gas produced by the landfill (original gas ROD, page 37). This represents a 78 percent reduction in the volume of methane gas currently being released from the site. The thermal destruction facility for the landfill gas will meet the 99.99 percent destruction efficiency as required by the Resource Conservation and Recovery Act (RCRA). Liquids (e.g., leachate and condensate) collected by the gas control system will be collected and treated in an on-site treatment plant currently being designed and constructed under the Leachate Management Operable Unit.

#### **CONTAINMENT COMPONENTS**

Alternative 11 amends the gas control remedy previously selected by adding the design and construction of landfill cover. The installation of landfill cover will further enhance the collection efficiency of the gas control system, thus reducing the potential for contaminant migration. The cover will be designed to meet applicable or relevant and appropriate requirements (ARARs) for landfill closure, including those under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6901, et seq. which defines general cover system performance standards, as well as more stringent promulgated State landfill cover requirements. The specific components for the cover will be developed during the remedial design stage.

Generally, the cover is designed to: (1) reduce gaseous surface emissions and associated odor; (2) minimize oxygen intrusion into the refuse; (3) reduce surface water infiltration and the subsequent formation of leachate; (4) minimize slope erosion; and (5) improve site aesthetics. Cover design options include characteristic components such as:

- 1) A base layer placed on the existing cover which acts as a foundation for the cover system;
- 2) A drainage layer (e.g., gravel, synthetic geogrid) to collect gas or liquids migrating to the surface of the landfill;
- 3) A barrier layer (e.g., clay, synthetic flexible membrane liner) to prevent gaseous surface emissions and surface water infiltration; and



- 4) A soil or synthetic layer to control erosion, prevent off-site sediment transport, and improve site aesthetics.

Test cover plots are currently being developed as part of the SCM activities. Information obtained as a result of the construction, operation, and maintenance of the test plots will facilitate the design and construction of a landfill cover which will effectively meet the RCRA cover system performance standards.

The 30-year present worth cost for the gas control system of \$62,900,000 was presented in the original gas ROD. Capital costs, operation and maintenance costs, and present worth costs for the landfill cover are estimated in the "Technical Memorandum--Cost Estimates for Landfill Cover Concepts RI/FS," dated December 11, 1989. A range of potential cover designs were identified and evaluated in the Technical Memorandum. Based on the range of cost estimates for the gas control system plus the landfill cover, the 30-year present worth cost, discounted at 5%, for the gas control system and landfill cover is estimated at \$125,300,000 to \$181,300,000. Significant efficiencies should result from the integrated design and construction of the landfill gas collection system and cover, resulting in a reduction in capital and life-cycle costs.

#### **SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES**

Tables 1 and 2 provide a summary of the relative performance of the alternatives, comparing present worth costs, effectiveness, and compliance with ARARs. Table 3 presents a more detailed evaluation of the effectiveness of the alternatives.

**Table 1**  
**ALTERNATIVES COMPARISON SUMMARY**  
**OIL LFG MIGRATION CONTROL**

Alternative		Effectiveness			Cost Estimate (a)	
		Innovative or Resource Recovery Technology	Estimated Additional LFG Collection (b)	Probability of Meeting or Exceeding ARARs	Capital Investment (\$ Million)	Operation & Maintenance (c) (\$ Million)
No.	Description					
0.	No Action	No	-	No	0	0
1.	Status Quo	No	0%	No	0	1.6
2.	Improved Status Quo	No	0%	No	5.8	1.5
3.	Minimal Gas Extraction with LFG Flaring	No	0%	Partially	15.5	2.0
4.	Intermediate Gas Extraction with LFG Flaring	No	20%	Possibly	23.3	2.5
5.	Maximum Gas Extraction with LFG Flaring	No	45%	High Probability	32.1	3.0
6.	Maximum Gas Extraction with LFG Boiler and Steam Power Generation	Yes	70%	High Probability	46.6	3.4(d) / 3.0(e)
7.	Replacement Gas Extraction with LFG Flaring	No	70%	High Probability	45.3	2.6
8.	Replacement Gas Extraction with LFG Boiler and Steam Power Generation	Yes	70%	High Probability	59.8	1.0(d) / 2.6(e)
9.	Modified Replacement Gas Extraction with LFG Flaring	No	70%	High Probability	27.0	2.3
10.	North Parcel System	No	70%	High Probability	0.4	0.038
11.	Alternatives 9 and 10 with Landfill Cover	No	70% +	High Probability	68.4-118.3	3.7-4.1

**Notes:**

- (a) Base costs are order-of -magnitude level estimates (i.e., the cost estimates have an expected accuracy of -30 to +50 percent).
- (b) Percent increase over projected (based on LFG generation model) LFG collected in 1990 using existing LFG facilities.
- (c) Operation/Maintenance, net estimated annual costs, 30 years unless noted specifically as (d) or (e), rounded off.
- (d) Operation/Maintenance, net estimated annual costs, 0-10 years, rounded off.
- (e) Operation/Maintenance, net estimated annual costs, 11-30 years, rounded off.

**TABLE 2**  
**Amended to Include Alternative 11**

**NET PRESENT WORTH OF ALTERNATIVES**

<u>Alternative</u>	<u>Project Life</u>	<u>Present Worth Rates (\$ in millions)</u>		
		<u>@ 3%</u>	<u>@ 5%</u>	<u>@ 10% (interest)</u>
1	30 years	31.1	24.4	15.0
	45 years	37.5	27.2	15.1
	60 years	41.4	28.3	14.9
2	30 years	35.3	29.0	20.0
	45 years	41.6	31.7	20.2
	60 years	45.5	32.9	20.2
3	30 years	54.1	45.7	34.0
	45 years	62.3	49.4	34.3
	60 years	67.6	51.1	34.3
4	30 years	71.5	61.1	46.5
	45 years	82.1	65.9	46.9
	60 years	88.8	68.1	46.9
5	30 years	90.0	77.5	60.0
	45 years	103.0	83.5	60.6
	60 years	111.2	86.2	60.6
6	30 years	94.0	82.2	67.7
	45 years	107.0	88.8	68.4
	60 years	115.3	91.5	68.4
7	30 years	96.1	85.2	69.8
	45 years	107.6	90.4	70.3
	60 years	114.9	92.9	70.3
8	30 years	100.2	90.5	77.5
	45 years	111.6	95.8	78.1
	60 years	119.0	98.0	78.1
9	30 years	71.6	61.9	48.4
	45 years	81.5	66.5	48.8
	60 years	87.9	68.6	48.9
10	30 years	1.1	1.0	0.8
	45 years	1.2	1.0	0.7
	60 years	1.2	1.0	0.7
11	30 years	140.9-198.7	125.3-181.3	103.3-157.0
	45 years	159.1-218.8	134.2-191.1	104.9-158.7
	60 years	170.8-231.8	138.4-195.9	105.3-159.2

**Table 3\***  
**EFFECTIVENESS EVALUATION OF ALTERNATIVES**

*1. Overall Protection of Human Health and the Environment*

<b>Effectiveness Criteria</b>	<b>Alternative 11</b>
How Alternative Provides Human Health and Environmental Protection	<ul style="list-style-type: none"> <li>• Landfill Gas normally released as surface emissions and subsurface migration will be reduced.</li> <li>• Greater reduction than Alternatives 9/10 through addition of landfill cover.</li> <li>• Cover enhances extraction well efficiency.</li> </ul>

*2. Compliance with ARARs*

<b>Effectiveness Criteria</b>	<b>Alternative 11</b>
Compliance with Chemical-Specific ARARs	<ul style="list-style-type: none"> <li>• Surface emissions control (less than 50 ppm average of methane; 500 ppm maximum at any point): Greater likelihood of compliance with addition of landfill cover than with Alternatives 9/10.</li> <li>• Subsurface migration control (less than 5 percent methane at boundary:): Greater likelihood of compliance by enhancing extraction system efficiency than with Alternatives 9/10.</li> </ul>
Compliance with Action Specific ARARs	<ul style="list-style-type: none"> <li>• Odor control: High potential for control of odorous surface emissions with maximum well coverage and landfill cover installation.</li> <li>• Thermal destruction facility will achieve a destruction and removal efficiency of 99.99%.</li> </ul>
Compliance with Location-Specific ARARs	No location-specific ARARs apply.

*3. Long-term Effectiveness and Permanence*

<b>Effectiveness Criteria</b>	<b>Alternative 11</b>
Magnitude of Residual Risk	A quantitative residual risk calculation has not been performed for this operable unit. However, due to greater control of emissions and enhanced gas collection associated with Alternative 11, residual risk is less than that potentially posed by Alternatives 9/10. A quantitative residual risk analysis will be done as part of the final site remedy.

\* Please see the attached ROD (9/30/88) for a complete evaluation of Alternatives 1-10.

#### 4. Reduction of Toxicity, Mobility, or Volume Through Treatment

Effectiveness Criteria	Alternative 11
Degree of Expected Reduction in Toxicity, Mobility, and Volume	Placement of cover will allow the other components of the remedy outlined in Alternatives 9/10, (including the treatment component discussed in the original ROD) to work more efficiently. High potential for reduction due to maximum well coverage plus landfill cover.

#### 5. Short-Term Effectiveness

Effectiveness Criteria	Alternative 11
Protection of Community During Remedial Actions	Short term risks posed by construction and/or surface emissions may exist, but will be mitigated by proper controls.
Environmental Impacts	Noise, LFG emissions, erosion, odors, and dust during construction will require engineering controls.
Protection of Workers during Remedial Actions	<ul style="list-style-type: none"> <li>• Potential contact with hazardous substances may exist, and will require appropriate health and safety procedures.</li> <li>• Physical hazards may exist due to on-slope construction of gas/cover components.</li> </ul>
Time Until Remedial Action Objectives are Achieved	<ul style="list-style-type: none"> <li>• Integrating gas/cover systems gains efficiencies in ease and time of design and construction. Remedial action objectives should be met sooner than with Alternative 9/10.</li> <li>• Without integration, cover would require difficult retrofitting to gas system (e.g. extension of extraction wells).</li> <li>• Time required to implement integrated gas/cover will be longer than implementing gas exclusively but less than implementing gas plus a retrofitted cover.</li> </ul>

#### 6. Implementability

Effectiveness Criteria	Alternative 11
Ability to Construct and Operate the Technology	Integrated gas/cover systems are widely used for control of releases at landfills. Broad range of technologies available, both proven and innovative, for system design. Slope steepness will impact the ease with which the cover will be installed; however, this issue will be addressed by considering a variety of cover systems for different portions of the landfill.

Reliability of Technology	Integrated LFG/cover system is a demonstrated and widely-used landfill technology. A broad range of equipment and materials are available, have been used on other landfills, and will be evaluated during system design.
Ability to Monitor Effectiveness of Remedy	Same as Alternatives 9 and 10.
Ability to Obtain Approvals from Other Agencies	Same as Alternatives 9 and 10.

### *7. Cost*

Effectiveness Criteria	Alternative 11
Capital Cost	Higher than Alternatives 9/10.
Operating and Maintenance Cost	Because the landfill cover will be installed together with the gas control components in Alternatives 9/10, it is likely there will be efficiencies gained in both operation and maintenance. Moreover, the original ROD contemplated a cover for the site, and O/M costs would be required for final remedy.
Present Worth Costs	Higher than Alternatives 9/10.

### *8. State Acceptance*

Effectiveness Criteria	Alternative 11
Features of the Alternative the State Supports	State concurs with choice of remedy, and has not identified any features about which it has reservations.

### *9. Community Acceptance*

Effectiveness Criteria	Alternative 11
Features of the Alternative the Community Supports	Community concurs with choice of remedy, and has not identified any features about which it has reservations.

## **STATE ACCEPTANCE**

EPA and the State of California, Department of Health Services, agree on the preferred alternative. Both Agencies have been involved in the technical review and the development of the Proposed Plan. The Department of Health Services issued a Negative Declaration on April 9, 1990 for the Gas Migration Control with Landfill Cover Operable Unit in compliance with the requirements of the California Environmental Quality Act (CEQA).

## **COMMUNITY ACCEPTANCE**

During the public comment period, EPA received two sets of written comments from the community.

- 1) A local community group Homeowners to Eliminate Landfill Problems (H.E.L.P.) concurs with the preferred alternative to amend the ROD to add landfill cover to the gas remedy.
- 2) The OII Steering Committee, a group of potentially responsible parties involved at OII, supports the consideration of integration of the cover component of the site remedy with the gas control remedy, but expressed concern about the lack of specificity regarding the exact type of cover design to be implemented. Detailed responses to the issues raised by the OII Steering Committee are included in the Responsiveness Summary section of the ROD.

A transcript of the public meeting, including public statements made during the meeting, is also included in the Responsiveness Summary.

## **SELECTED REMEDY/STATUTORY DETERMINATIONS**

The selected remedy, Alternative 11, for this ROD amendment integrates the design and construction of landfill cover with the landfill gas control remedy previously selected in the original gas ROD. The major components of the amended landfill gas control and cover remedy include:

- o Landfill cover designed to: (1) reduce surface gas emissions and odors; (2) prevent oxygen intrusion into the refuse; (3) prevent surface water infiltration; (4) provide erosion control; and (5) to improve site aesthetics;
- o Perimeter LFG extraction wells, with placement focused on minimizing off-site LFG migration;

- o LFG extraction wells on the top deck of the landfill, with placement focused on maximizing source control of LFG;
- o Shallow and deep slope wells with placement focused on reducing surface emissions and controlling intermediate to deep subsurface migration at the perimeter;
- o Integrated above-grade LFG headers and condensate sumps;
- o LFG monitoring wells at the site boundary;
- o Upgraded thermal destruction facility for landfill gas; and
- o Pumps in appropriate gas wells, with above-grade collection sumps, to de-water saturated zones.

The addition of landfill cover to this operable unit significantly increases the protection of human health and the environment and will be designed to attain ARARs or a waiver is justified.

#### **PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT**

The selected remedy protects human health and the environment through extraction and thermal destruction of landfill gas and installation of landfill cover. The thermal destruction will permanently remove 99.99 percent of the contaminants in the landfill gas. The landfill cover will be designed to reduce surface gas emissions and odors; prevent oxygen intrusion into the refuse, which will allow the gas systems to work more effectively; prevent surface water infiltration, which will assist in leachate management; and promote erosion control.

Short-term risks associated with the selected remedy, as addressed in the original gas ROD (at page 31), can be readily controlled. In addition, no adverse cross-media impacts are expected from the remedy.

#### **COMPLIANCE WITH ARARs**

The selected amended remedy for the landfill gas migration control and landfill cover operable unit will be designed to attain the following applicable or relevant and appropriate requirements (ARARs), in addition to the ARARs identified in the original gas ROD. These ARARs were identified from Federal, and more stringent promulgated state and local environmental and public health laws.



The amended remedy is an operable unit which only addresses landfill gas migration control and landfill cover. While certain closure and post-closure requirements are applicable, this remedial action does not address all closure and post-closure ARARs. Upon conclusion of the Remedial Investigation and Feasibility Study, additional remedial actions may be selected. EPA currently expects that further actions, including groundwater remediation, may be required. The ARARs for such remedial actions will be identified and addressed at that time.

### **Federal Requirements**

#### **1. Resource Conservation and Recovery Act (RCRA)**

The Resource Conservation and Recovery Act (RCRA), Subtitle C, sets forth several applicable requirements for the amended remedy at 40 C.F.R. Part 265, Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities, and several relevant and appropriate requirements in 40 CFR part 264, Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities.

The Land Disposal Restrictions of RCRA are neither applicable, nor relevant and appropriate to this remedial action. Generally, any movement of hazardous waste will be within the same area of contamination. There will be no residuals from the thermal destruction facility to be redeposited, and any condensate or leachate will be treated on site at the treatment plant currently being designed and constructed under the Leachate Management operable unit.

#### **A. Part 265, Subpart G: Closure and Post-Closure**

##### **40 C.F.R. § 265.117: Post-closure care and use of property**

Post-closure care requirements must begin after closure of the unit and continue for 30 years after that date. These requirements include (c): post-closure use of the property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the cover.

#### **B. Part 265, Subpart N: Landfills**

##### **40 C.F.R. § 265.310 - Closure and Post-Closure Care**

The final landfill cover must be designed and constructed to: (1) provide long-term minimization of migration of liquids through the closed landfill; (2) function with minimum maintenance; (3) promote drainage and minimize erosion or abrasion of the cover; (4) accommodate settling and subsidence so

that the cover's integrity is maintained; and (5) have a permeability less than or equal to any bottom liner system or natural subsoils present.

The 30 year post-closure care of the cover must include: (1) maintenance of the integrity and effectiveness of the cover, including repairs to the cover as necessary to correct the effects of settling, subsidence, erosion or other events; (2) prevention of run-on and run-off from eroding or otherwise damaging the cover; and (3) protection and maintenance of surveyed benchmarks.

#### **C. Part 264, Subpart O: Incinerators**

Several of the sections of this subpart are relevant and appropriate requirements for the thermal destruction facility, which meets the RCRA definition of an "incinerator," namely an enclosed device using controlled flame combustion to incinerate hazardous waste.

##### **40 C.F.R § 264.343 - Performance Standards**

The remedy will be designed to attain the standards required by this section. The thermal destruction facility must be designed, constructed and maintained to meet the following performance standards:

(1) the facility must achieve a destruction and removal efficiency of 99.99 percent for each principal organic hazardous constituent in the waste feed;

(2) the facility must reduce hydrogen chloride emissions to 1.8 kg/kr or 1 percent of the HCl in the stack gasses before entering any pollution control devices; and

(3) the facility must not release particulate in excess of 180 mg/dscm corrected for the amount of oxygen in stack gas.

##### **40 C.F.R § 264.345 - Operating Requirements**

The thermal destruction facility will be operated to meet the following requirements of this section: (1) monitoring of various parameters during operation, including, combustion temperature, waste feed rate, an indicator of combustion gas velocity, and carbon monoxide; (2) control of fugitive emissions by (a) keeping the combustion zone totally sealed against fugitive emission, (b) maintaining combustion-zone pressure lower than atmospheric pressure, or (c) controlling via an alternate means to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure; and (3) utilization of an automatic cutoff system to stop waste feed when operating conditions deviate.

## **2. Clean Water Act (CWA)**

Clean Water Act National Pollutant Discharge Elimination System (NPDES): 40 C.F.R. Part 125 sets forth requirements for permits for the discharge of pollutants from any point source into waters of the United States. Minimization of the off-site transport of materials and debris to meet the substantive portion of the NPDES permit requirements will be addressed during the Remedial Design phase in the development of the landfill cover grading plan and the design of the site stormwater management and drainage structures.

### **State Requirements**

The State of California has timely identified several ARARs which are applicable to the amended selected remedy in addition to the ARARs identified in the original gas ROD. Moreover, the selected remedy will meet ARARs, as noted below, for which interim waivers were invoked in the original gas ROD pending the addition of landfill cover.

**1. South Coast Air Quality Management District, Rules and Regulations** (administered by the South Coast Air Quality Management District, as delegated by the California Air Resources Board).

**Rule 402 - Nuisance.** This rule prohibits the discharge of any material (including odorous compounds) that cause injury, detriment, nuisance, or annoyance to the public, businesses, or property or endangers human health, comfort, repose or safety. The selected amended remedy will be designed to attain this ARAR, waived in the original gas ROD.

**Rule 432.1** - A typographical error in the original ROD identified this Rule as 431.1.

### **Regulation XI - Source Specific Standards - 1150.2**

The original gas ROD identified Rule 1150.1, Control of Gaseous Emissions from Active Landfills, as an ARAR for the selected remedy and waived this requirement pending selection of landfill cover. The cover selected by this amended remedy will be designed to meet Rule 1150.2, Control of Gaseous Emissions from Inactive Landfills, which is an applicable state requirement.

**Rule 1150.2 - Control of Gaseous Emissions from Inactive Landfills,** requires perimeter landfill gas monitoring probes to evaluate off-site migration and limits concentration to total organic compounds to 50 ppm over a representative area of the landfill and maximum concentration of organic compounds (measured

(1) The concentration of methane gas must not exceed 1.25% by volume in air within on-site structures;

(2) The concentration of methane gas migrating from the landfill must not exceed 5% by volume in the air at the facility property boundary or an alternative boundary in accordance with Section 17783.5.

(3) Trace gases shall be controlled to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds.

Subsection (b) sets forth the period during which monitoring should continue and subsection (d) provides that the monitoring and control systems shall be modified, during the closure and postclosure maintenance period to reflect changing on-site and adjacent land uses. Postclosure land use at the site shall not interfere with the function of gas monitoring or control systems.

**b. Section 17783.3 - Monitoring**

This section requires that the gas monitoring system shall be designed to meet with the specified site characteristics, and potential migration pathways or barriers, including, but not limited to: (1) local soil and rock conditions; (2) hydrogeological conditions at the facility; (3) locations of buildings and structures relative to the waste deposit area; (4) adjacent land use, and inhabitable structures within 1000 feet of the landfill property boundary; (5) man-made pathways, such as underground construction; and (6) the nature and age of waste and its potential to generate landfill gas.

**c. Section 17783.5 - Perimeter Monitoring Network**

This section sets forth specific requirements for the location (subsection a), spacing (subsection b), depth (subsection c) and construction (subsection d) of the monitoring wells.

**d. Section 17783.7 - Structure Monitoring**

This section requires that the design of the monitoring system include provisions for monitoring on-site structures, identifies some methods for monitoring such structures, and requires that structures located on top of the waste deposit area be monitored on a continuous basis.

**e. Section 17783.9 - Monitoring Parameters**

This section requires that all monitoring probes and on-site structures be sampled for methane and for specified trace gases, when there is a possibility of acute or chronic exposure due to carcinogenic or toxic compounds.

as methane) to 500 ppm, at any point on the surface of the landfill.

2. **Solid Waste Management and Resource Recovery Act of 1972** (administered by the California Integrated Waste Management Board). The following titles of this act are applicable to the landfill cover component of the selected amended remedy.

A. **Title 14, California Code of Regulations, Division 7**

The following sections of Chapter 3, Minimum Standards of Solid Waste Handling and Disposal, Article 7.8, Disposal Site Closure and Postclosure, are applicable to landfill cover.

1. **Section 17773 - Final Cover**

The regulation is applicable and the cover will be constructed to meet its requirements. This regulation requires that a minimum thickness and quality of cover be placed over the entire surface of the final lift which meets the standards of Title 23, CCR, Subchapter 15, Section 2581 or that meet the standards set forth for an engineered alternative. The prescriptive standard must be not feasible and the alternative must be consistent with the performance goals of subsection (e) and afford equivalent protection against water quality impairment. Subsection (d) provides the basis for showing compliance with this standard is not feasible.

Subsection (e) sets forth the following minimum performance goals for the thickness and quality of cover: (1) a need to limit infiltration of water, to the greatest extent possible; (2) a need to control landfill gas emissions; (3) the future reuse of the site; and (4) a need to protect the low permeability layer from desiccation, penetration by rodents, and heavy equipment damage.

2. **Section 17783 - 17783.15**

These sections are applicable to the amended selected remedy, and it will be designed to attain these requirements. These regulations became effective August 1989 and were not promulgated at the time the gas ROD was originally signed. However, the remedy both as originally selected and as amended, will meet these ARARs.

a. **Section 17783 - Gas Monitoring and Control During Closure and Postclosure**

During periods of closure and postclosure maintenance, landfill gases generated at the facility must be controlled as follows:

**f. Section 17783.11 - Monitoring Frequency**

This section requires a minimum of quarterly monitoring with more frequent monitoring required if results indicate the landfill gas is migrating or accumulating in structures.

**g. Section 17783.15 - Control**

Subsection (a)(1) requires that all immediate steps be taken when the results of gas monitoring indicate levels of methane in excess of the compliance levels required by Section 17783(a).

Subsection (b) requires that the gas control system be designed to: (1) prevent methane accumulation in on-site structures; (2) reduce methane concentrations at monitored property boundaries to below compliance levels; (3) reduce trace gas concentrations; (4) provide for the collection and treatment and/or disposal of landfill gas condensate at the surface.

Subsection (c) indicates that the gas control systems may include, but are not limited to, the control systems enumerated in subsections (c)(1), (2) and (3).

Subsection (d) provides steps to be taken in the event on-site structure methane levels exceed that specified in Section 17783(a).

Subsection (e) requires that the operator provide for system monitoring and adjustment to ensure that the gas control system is operating at optimum efficiency.

**3. Section 17796 - Postclosure Land Use**

This regulation sets forth requirements concerning postclosure land use. Subsections (c), (d) and (e) are applicable to this remedial action. Subsection (c) requires that construction improvements on the site shall maintain the integrity of the final cover and the function of the monitoring system(s). Subsection (d) sets forth conditions to be met for construction of structural improvements on top of landfilled areas during the post-closure period. Subsection (e) sets forth building conditions pertaining to on-site structures constructed within 1,000 feet of the waste holding area.

**B. Title 22, California Code of Regulations**

**Article 18: General Facility Standards**

**Section 67108: Seismic and Precipitation Design Standards**

This section is applicable to the landfill cover component

and requires the design of cover systems and drainage control to function without failure when subjected to capacity, hydrostatic and hydrodynamic loads resulting from a 24-hour probable maximum precipitation storm. Additionally, all covers and cover systems which will remain after closure must be designed, constructed and maintained to withstand the maximum credible earthquake without the level of public health and environmental protection afforded by the original design being decreased.

**Article 23 - Closure and Post-closure for Interim Status and Permitted Facilities**

**Section 67211 - Closure Performance Standard**

Subsection (b) of this section is applicable to the selected amended remedy and requires that the facility be closed in a manner which controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to the ground or surface waters or to the atmosphere. As noted above, this operable unit does not address all aspects of closure; to the extent not addressed by this or earlier operable units, these will be addressed by subsequent remedial actions.

**Article 29 - Landfills at Both Interim Status and Permitted Facilities**

**Section 67418 - Closure and Post-Closure Care of Landfills at Interim Status Landfills**

This section requires the design and construction of final cover to meet certain standards which are equivalent to those set forth under RCRA. More stringent, applicable requirements include, subsection (1) which requires the prevention of downward entry of water into the closed landfill throughout a period of at least 100 years, and subsection (5) which requires that the cover be designed and constructed to accommodate lateral and vertical shear forces generated by earthquakes so that the integrity of the cover is maintained.

**C. Title 23, California Code of Regulations**

**Chapter 3, State Water Resources Control Board  
Subchapter 15 - Discharges to Land**

Three sections of this subchapter are applicable. For the purposes of applying these regulations, the OII Site is considered to be a Class I facility. (See Section 2531(a)(2) of this Title.)

**1. Section 2546: Precipitation and Drainage Controls**

Subsection (a) requires that the cover shall be designed and constructed to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout and overtopping under probable maximum precipitation conditions.

Subsection (c) requires diversion and drainage facilities to be designed and constructed to accommodate the anticipated volume of precipitation and peak flows from surface run-off under probable maximum precipitation conditions.

Subsection (d) requires collection and holding facilities associated with precipitation and drainage control systems to be emptied immediately following each storm or otherwise managed to maintain the design capacity of the system.

Subsection (e) requires surface and subsurface drainage from outside of a waste management unit to be diverted from the waste management unit.

Subsection (f) requires cover materials to be graded to divert precipitation from the waste unit, to prevent ponding of surface water over wastes, and to resist erosion as a result of precipitation with the return frequency specified in Table 4.1.

**2. Section 2547: Seismic Design**

This section requires structures which control surface drainage, erosion or gas shall be designed to withstand the maximum credible earthquake without damage.

**3. Section 2581: Landfill Closure Requirements**

The requirements of subsection (a) for cover are applicable. This section requires at least two feet of appropriate materials, (primarily soil-type materials) as a foundation layer and an additional one foot of soil on top of this foundation layer. These requirements will not be met by the selected remedy, and are being waived pursuant to Section 121(d)(4)(B), (C) and (D), 42 U.S.C. § 9621 (d)(4)(B), (C) and (D). Due to the configurations of the OII site, including its steep slopes and direct proximity to both homes and the Pomona freeway, a cover constructed of soil-type materials and with the thickness required by this subsection would result in a greater risk to human health and the environment than the selected remedy. Construction for such a cover is technically impracticable from an engineering perspective; far greater flexibility in types of materials and cover design is required by this site. The remedy selected will attain a standard of performance that is equivalent to that required by this section through an alternative approach which provides for a variety of cover materials.



The landfill cover component will be designed to attain the requirements of Sections 2581(b) and (c). Subsection (b) sets forth grading requirements which provide that closed landfills will be graded and maintained to prevent ponding and sets forth conditions specific to the steepness of slopes. Subsection (c) requires that the surface water be monitored in accordance with Article 5 of this Section.

#### **COST-EFFECTIVENESS**

Of the alternatives evaluated, the selected remedy provides the highest level of protection of human health and the environment in a cost-effective manner. Significant technical and economic efficiencies will be gained from the integrated design and construction of the landfill gas collection system and landfill cover.

#### **UTILIZATION OF PERMANENT SOLUTIONS AND ALTERNATIVE TREATMENT TECHNOLOGIES OR RESOURCE RECOVERY TECHNOLOGIES TO THE MAXIMUM EXTENT PRACTICABLE**

EPA believes the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be used for this operable unit at the OII site. Of those alternatives that are protective of human health and the environment and comply with ARARs, EPA has determined the selected remedy provides the best balance in terms of long-term effectiveness and permanence, reduction in toxicity, effectiveness, and reduction in volume achieved through treatment, short term effectiveness, implementability, and cost while considering the statutory preference for treatment as a principal element as well as community input.

Alternative 11 reduces the toxicity, mobility, and volume of the contaminants in the landfill gas, complies with ARARs, or a waiver is justified, provides short-term effectiveness, and protects human health and the environment more effectively and more rapidly than any of the other alternatives considered. The selected remedy is more reliable and can be implemented with less difficulty than implementation of gas control and landfill cover separately, and is therefore determined to be the most appropriate and cost-effective remedy for this operable unit at the OII site.

#### **PREFERENCE FOR TREATMENT AS A PRINCIPAL ELEMENT**

By treating the landfill gas using thermal destruction, the selected remedy satisfies the statutory preference for remedies that employ treatment of the principal threat which permanently and significantly reduces toxicity, mobility, or volume of hazardous substances as a principal element. The addition of landfill cover will further increase the efficiency of the gas

control system by reducing surface emissions and preventing oxygen intrusion into the refuse. Complete treatment of the refuse at this landfill is impracticable due to severe implementability problems, the potential for significant short-term risks, and prohibitive costs.

**Exhibit B**  
**SCOPE OF WORK**

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## **1.0 INTRODUCTION AND OBJECTIVES**

### **1.1 Introduction**

- 1.1.1** This Scope of Work (SOW) details the activities to be undertaken by the Work Defendants in compliance with this Decree.
- 1.1.2** The Work includes all activities, not defined as Excluded Work, necessary for the implementation of the Predesign, Design, Construction, Compliance Testing, and Operation & Maintenance (including monitoring) of the Gas Control System, Cover System and Surface Water Management System. The Work also includes the development and implementation of management plans as well as communication, integration and coordination procedures.

Operation & Maintenance activities shall be conducted during construction, compliance testing and for a period of three years after compliance with Performance Standards has been demonstrated in accordance with procedures described in Section 5.5 of this SOW.

The basic elements of the Work shall include:

- 1.1.2.1** The Gas Control System including
  - Gas Collection Component
  - Liquids Collection Component
  - Liquids Treatment Component
  - Gas Monitoring Component
- 1.1.2.2** The Cover System including
  - Cover Component
  - Cover Protection Component
  - Access and Bench Road Component
- 1.1.2.3** The Surface Water Management System including drainage pipes and channels; roadway and bench ditches; retention/siltation basins, if required; and other appurtenances which convey and control surface water run-off generated by storm events, run-on and irrigation operations
- 1.1.2.4** At the time that construction activities begin in a particular geographic area, the Work Defendants shall be responsible for all operation, maintenance, and monitoring activities related to the Work and corresponding to that geographic area, including the following SCM activities previously being conducted pursuant to Section 5.0 of Appendix C of the First Decree:
  - Task S.1 Gas Management
  - Task S.2 Stormwater/Erosion Control
  - Task S.3 Landscaping/Irrigation
  - Task S.4 Access Roads

Definitions of the geographic areas and specific transition procedures shall be set forth in the Predesign Report, Operations Plan and design packages developed pursuant to

this Decree. These activities shall continue until EPA's approval of the Work Completion Report or termination of the First Decree whichever is later.

1.1.2.5 In the event that Work activities result in the alteration, destruction or abandonment of any Site facility not related to the Work but necessary for Site work including activities identified in Section 1.2.3 of this SOW, Work Defendants shall either repair or replace, as necessary, such facility with one that provides the same level of control or function, as appropriate.

1.1.3 The Work shall be performed to assure integration and coordination with the Excluded Work. The Excluded Work shall be defined, both individually and collectively as: Procurement and Construction of the Cover Protection Component of the Cover System for the North Slope of the South Parcel; the Thermal Destruction Facility; and the North Parcel Systems.

1.1.3.1 Procurement and Construction of the Cover Protection Component of the Cover System for the North Slope of the South Parcel (NSSP)

The NSSP is defined as the approximately 44 acre area on the South Parcel with boundaries as defined pursuant to this Decree and Figure B-1. Work Defendants may choose to relocate the interface boundary which separates the North Slope of the South Parcel from the East Slope of the South Parcel during the performance of the Work if such relocation decreases the size of the NSSP, and if approved by EPA.

The Cover System for the NSSP is expected to be composed of a combination of impermeable and protective layers which will lay directly above the Gas Collection Component of the Gas Control System as illustrated in Figures B-4 and B-5.

The Excluded Work for the NSSP consists of the procurement and construction of the Cover Protection Component of the Cover System. The Cover Protection Component will lay directly above the Cover Component.

As part of the Work, the Work Defendants shall provide final design plans and specifications pursuant to this SOW to the person or persons performing this item of Excluded Work.

1.1.3.1.1

Elements of the Excluded Work for the NSSP include:

Cover System

- Procurement and Construction of the Cover Protection Component

1.1.3.1.2

Excluded Work for the NSSP shall not include the following items. These items shall be considered Work:

#### Gas Control System

- Predesign
- Design
- Construction
- Compliance Testing
- Operation and Maintenance

#### Cover System

- Predesign of all components
- Design of all components
- Construction of all components except for the Cover Protection Component
- Compliance Testing of all components
- Operation and Maintenance of all components

#### Surface Water Management System

- Predesign
- Design
- Construction
- Compliance Testing
- Operation and Maintenance

### 1.1.3.2 Thermal Destruction Facility (TDF)

The TDF will treat the contaminants in the landfill gas stream through thermal destruction or energy recovery technology.

#### 1.1.3.2.1

Elements of the Excluded Work for the primary TDF and any necessary backup include:

- Predesign
- Design
- Construction
- Compliance Testing
- Operation and Maintenance

#### 1.1.3.2.2

Excluded Work for the TDF shall not include the following items. These items shall be considered Work:

- Landfill Gas Characterization activities pursuant to Sections 5.2.3 and 5.3.8.9 of this SOW.
- Provision of adequate destruction capacity for landfill gas collected until the TDF becomes operational. Existing Site facilities may be utilized to the maximum extent possible, and modified as necessary.



### 1.1.3.3 North Parcel Systems (NP)

The North Parcel is defined as the 45-acre portion of the site which lies to the north of Highway 60 (Pomona Freeway). North Parcel Systems include conveyance of collected North Parcel landfill gas to the TDF and recovered North Parcel liquids to the Leachate Management System implemented pursuant to the First Decree.

#### 1.1.3.3.1

Elements of the Excluded Work for the NP include:

##### Gas Control System

- Predesign
- Design
- Construction
- Compliance Testing
- Operation and Maintenance

##### Cover System

- Predesign
- Design
- Construction
- Compliance Testing
- Operation and Maintenance

##### Surface Water Management System

- Predesign
- Design
- Construction
- Compliance Testing
- Operation and Maintenance

#### 1.1.4 The SOW is presented in the following format:

- The remainder of Chapter 1.0 discusses the objectives for the Work activities.
- Chapter 2.0 provides a concise description of the existing environmental control systems of the Site related to Work activities.
- Chapter 3.0 discusses the mechanisms for integration and coordination for the Work, Excluded Work and other Site activities including those described in Section 1.2.3 of this SOW.
- Chapter 4.0 describes the management plans to be prepared by the Work Defendants to guide Work activities performed pursuant to this Decree.
- Chapter 5.0 provides the description of the Work activities.

- Chapter 6.0 defines the procedures to be followed for the review of deliverables, and for construction, inspection and startup activities.
- Chapter 7.0 discusses the schedule for Work activities and the deliverables described in this SOW.
- Attachment-I provides a detailed description of the existing environmental control systems of the Site related to Work activities.
- Attachment-II contains Figures for the SOW and for Attachment-I.

## 1.2 Objectives

1.2.1 This Section states the overall objectives for the Work performed pursuant to this Decree. In addition, the objectives for components of the Work are summarized herein. The overall objective for the Work is to design, construct, operate, maintain, and monitor the Gas Control System, Cover System and Surface Water Management System to meet Performance Standards.

1.2.2 **Performance Standards**  
Performance Standards shall be defined to be those cleanup standards, standards of control and other substantive requirements, criteria or limitations, set forth in the Gas ROD, the Consent Decree, and this SOW. Work Defendants shall meet the Performance Standards as set forth in this Decree.

1.2.2.1 With respect to the requirements of the Clean Water Act, National Pollutant Discharge Elimination System (NPDES), it is anticipated that the procedures set forth in the "Rainwater Run-off Field Sampling Plan" developed pursuant to the First Decree, with any modifications as appropriate, will be used to satisfy these requirements. "Any modifications as appropriate" shall not automatically incorporate into this SOW any Federal or State regulation or requirement pertaining to stormwater discharges promulgated subsequent to the Gas ROD pursuant to Section 402(p) of the Clean Water Act, 33 U.S.C. § 1342(p), or any State regulation or requirement pertaining to stormwater discharges promulgated subsequent to the Gas ROD pursuant to state authority other than pursuant to Section 402(p) cited above.

1.2.2.2 The California Integrated Waste Management Board, Title 14, Sections 17783 and 17783.9 requires the control and monitoring of landfill gases to include trace gases to prevent adverse acute and chronic exposure to toxic and/or carcinogenic compounds. Work Defendants shall control the substances listed below to maintain the level of protection specified by 40 C.F.R. § 300.430(e)(2)(i)(A) of the NCP. Nothing in this Section shall be deemed to limit EPA's authority under CERCLA and the NCP in the event that a standard or requirement for a substance listed below is promulgated subsequent to the Gas ROD.

The trace gases to be monitored, sampled and controlled for at the OII Site shall be:

1,1-Dichloroethane	Hydrogen Sulfide
1,1-Dichloroethene	Perchloroethene
1,2-Dibromoethane	Tetrachloroethene
1,2-Dichloroethane	Tetrachloromethane
1,1,1-Trichloroethane	Toluene
Benzene	Total Xylenes
Chlorobenzene	Trichloroethene
Dichloromethane	Vinyl Chloride
Ethylbenzene	

During the implementation of this Decree, EPA may require that trace gases be added to this list for monitoring; and Work Defendants may request that trace gases be removed from the list for monitoring subject to EPA approval.

1.2.2.3 The California Integrated Waste Management Board, Title 14, Section 17783.5, sets forth the location requirements for the perimeter monitoring network. Due to the configuration of the OII Site, site factors to be considered in placing probes may include the possibility that trash may be located at or beyond the property boundary thus permitting the consideration of an alternate boundary based on this factor.

1.2.2.4 With respect to the standards set forth in Sections 2546 and 2547 of Title 23, Chapter 15 of the California Code of Regulations, pertaining to precipitation and seismic events, respectively, because the OII Site has atypical landfill features, it is anticipated that a specific engineered alternative may be appropriate pursuant to Section 2510 of that Title.

1.2.2.5 Section 67418(a)(1) of Title 22 of the California Code of Regulations requires the design and construction of final landfill cover to meet a specified standard of downward entry of water into the closed landfill. It is anticipated that an alternative design may be appropriate to meet this standard, pursuant to Section 66300(f) of that Title, which provides that wherever the regulations require a specific design standard or criteria, the design required must meet that standard or criteria or provide for an equivalent level of protection for public health and the environment.

1.2.3 Performance of the Work shall be conducted in a manner which assures integration and coordination with Site operations and tasks. Activities performed pursuant to this Decree shall be integrated and coordinated with at least the following tasks:

- Site Control and Monitoring (SCM)

- Site Security
- Leachate Management System (LMS) operation
- Leachate Treatment Plant operation
- Excluded Work
- Remedial Investigation
- Feasibility Study
- RI/FS treatability studies
- Final Remedy
- Emergency response activities
- Community relations activities

**1.2.4 Gas Control System: including the Gas Collection Component, Liquids Collection Component, Liquids Treatment Component, and Gas Monitoring Component**

**1.2.4.1 Gas Collection Component**

The gas collection component will consist of the extraction wells, surface collectors, vacuum piping, monitoring probes and their appurtenant features. Objectives include the following:

- Minimize subsurface migration
- Minimize surface emissions
- Maximize collection system efficiency
- Maximize potential for removal of recovered liquids
- Provide adequate destruction capacity for landfill gas collected until the TDF becomes operational. Existing Site facilities may be utilized to the maximum extent possible, and modified as necessary.

**1.2.4.2 Liquids Collection Component**

The liquids collection component will consist of equipment to collect condensate, pump liquids from gas wells, if required for gas control, and related piping and appurtenances required to collect and convey recovered liquids to an appropriate location for treatment as per Section 1.2.4.3 of this SOW. Objectives include the following:

- Minimize the potential for system upsets

- Minimize the impact of system upsets
- Maximize collection of recovered liquids

#### 1.2.4.3 Liquids Treatment Component

It is anticipated that the collected gas condensate and other liquids recovered from components of the Gas Control System shall be treated by the Leachate Management System (LMS) implemented pursuant to the First Partial Consent Decree entered by the Court on May 11, 1989. The LMS includes the Leachate Treatment Plant and pre-treatment facilities (if any) that may be located in the field. If additional on-site treatment facilities are constructed pursuant to this Decree, their construction and operations shall be integrated with the LMS. Surface water shall be managed by the Surface Water Management System. Treatment objectives for any additional on-site treatment facilities constructed pursuant to this Decree include the following:

- Treat recovered liquids from the gas control system to the appropriate standards.

#### 1.2.4.4 Gas Monitoring Component

The Gas Monitoring Component will include equipment and procedures for monitoring, and sampling as appropriate, of probes and wells, off-site water meter boxes, landfill surface emissions, landfill gas quality and quantity, condensate quantity monitoring, methane levels in on-site structures, and other monitoring and sampling required to demonstrate compliance with Performance Standards. Monitoring objectives include the following:

- Determine compliance with Performance Standards established for the Site
- Provide data to assist in the efficient operation of existing flares, TDF and liquids treatment facilities
- Determine changes in landfill gas production rates which could affect operation control procedures for the Site

#### 1.2.5 Cover System: including the Cover Component, Cover Protection Component, and Access and Bench Road Component

##### 1.2.5.1 Cover Component

The Cover Component will consist of the low permeability layer(s) and the materials required to support, stabilize and anchor the low permeability layer(s). The Cover Component extends from directly above the refuse prism or surface collectors, if any, to the Cover Protection Component. The

functional objectives of the Cover Component include the following:

- Maximize control of both subsurface migration and surface emissions of landfill gas
- Minimize surface water infiltration into the refuse prism
- Minimize liquid percolation into the Cover System
- Minimize impact of liquids on cover component and surface collector efficiency
- Maximize maintenance effectiveness
- Minimize oxygen intrusion

#### 1.2.5.2 Cover Protection Component

The Cover Protection Component will lay directly above the Cover Component and will include either (a) or (b) or a combination of (a) and (b):

- (a) The vegetative growth required to protect the Cover System; any topsoil necessary to support the vegetative growth, if required; and the irrigation system, if required, including the pumps, pipes, valves, sprinklers, nozzles, drip emitters, and other appurtenances employed for delivery of irrigation water to natural landscaping
- (b) The outer-most synthetic layer of a synthetic cover system if synthetic materials are used instead of vegetation

The objectives of the Cover Protection Component include the following:

- Maximize protection of the Cover Component
- Minimize degradation or cracking of the Cover System
- Maximize functionality of the Cover System
- Maintain required soil moisture contents, if appropriate
- Minimize erosion
- Maximize aesthetics
- Minimize maintenance requirements
- Minimize irrigation water consumption

- Minimize fire potential

#### **1.2.5.3 Access and Bench Road Component**

The Access and Bench Road Component includes all access and bench roads at the Site. Objectives for the Access and Bench Road Component include the following:

- Maximize all-weather accessibility for completed access and bench roads
- Minimize maintenance requirements for completed access and bench roads
- Provide adequate space for installation, operation and maintenance of components of Site systems located at completed access and bench roads
- Minimize the time that access to landfill areas is disrupted during construction
- Maintain access required for operations during construction

#### **1.2.6 Surface Water Management System**

The facilities to manage surface water run-off generated by storm events, run-on and irrigation operations consist of drainage pipes and channels, retention and siltation basins if required, access and bench road ditches, and other appurtenances which convey and control surface water run-off. The Surface Water Management System objectives include the following:

- Minimize surface water infiltration
- Minimize erosion
- Minimize maintenance requirements
- Minimize off-site impacts related to run-off water quality and quantity
- Maximize all-weather site accessibility
- Prevent surface water run-on

## **2.0 BACKGROUND**

### **2.1 Location**

The Operating Industries, Inc. (OII) Site is located at 900 Potrero Grande Drive in the City of Monterey Park, Los Angeles County, California. The Site encompasses approximately 190 acres, with the Pomona Freeway dividing the Site into a 45-acre North Parcel and a 145-acre South Parcel.

## **2.2 Existing Systems Descriptions**

Descriptions of the existing gas, cover and surface water management systems for the South Parcel are provided in Attachment-I of this SOW. The following systems and facilities are discussed:

### **I-1.0 Gas Management**

- I-1.1 Interior Gas Extraction System**
  - I-1.1.1 Wellfield**
  - I-1.1.2 Wells**
  - I-1.1.3 Surface Collectors**
  - I-1.1.4 Conveyance Components**
- I-1.2 Perimeter Gas Extraction System**
  - I-1.2.1 Extraction Wells**
  - I-1.2.2 Conveyance Components**
- I-1.3 Flaring Systems**
  - I-1.3.1 Flare Station No. 1 (FS1)**
  - I-1.3.2 Flare Station No. 2 (FS2)**
  - I-1.3.3 Auxiliary Flare Station (AFS)**
- I-1.4 Air Dike System**
  - I-1.4.1 Compressor Station**
  - I-1.4.2 Wellfield**
- I-1.5 Combination Leachate/Gas Extraction Wells**

### **I-2.0 Existing Cover**

### **I-3.0 Stormwater/Erosion Control**

### **I-4.0 Site Access and Security**

- I-4.1 Access Roads**
- I-4.2 Perimeter Fencing**
- I-4.3 Main Gate Security Office**
- I-4.4 Security Lighting**

### **I-5.0 Gas Monitoring Systems**

- I-5.1 Perimeter Probes**
  - I-5.1.1 South Parcel Probes**
  - I-5.1.2 North Parcel Probes**
- I-5.2 Off-site Probes**
- I-5.3 Gas Monitoring Wells**
- I-5.4 Water Meter Boxes**
- I-5.5 Air Dike Probes**

## **3.0 INTEGRATION AND COORDINATION**

### **3.1 Introduction**

Work Defendants shall establish integration and coordination procedures to facilitate the performance of the Work, Excluded Work, and other Site operations and tasks listed in



Section 1.2.3 of this SOW. The Work Defendants shall perform all activities required under this Decree in such a manner so as not to impede the ability of any person(s) performing an item(s) of Excluded Work or any portion thereof to attain performance standards for that item(s) or portion of Excluded Work.

- 3.1.1 Integration applies to materials and equipment required to implement the Work, Excluded Work or other Site operations and tasks listed in Section 1.2.3 of this SOW. Integration shall be required by Work Defendants when conducting Work which directly impacts the predesign, design, construction or operation and maintenance of Excluded Work or other Site operations and tasks listed in Section 1.2.3 of this SOW.

Systems constructed pursuant to the Work, Excluded Work and other Site operations and tasks shall, in the future, be operated and maintained as an integral system. Therefore, the Work Defendants shall assure, pursuant to procedures set forth in Section 3.2 of this SOW, that the material and equipment required to implement the Work is compatible, and will function efficiently with, the materials and equipment required to implement Excluded Work, and other Site activities and tasks listed in Section 1.2.3 of this SOW.

For example, integration will be required to assure that the conveyance system for landfill gas collected from the South Parcel described in Section 1.2.4 of this SOW, functions efficiently with the Thermal Destruction Facility described in Section 1.1.3.2 of this SOW. It is anticipated that all Work, Excluded Work, and other Site operations and tasks listed in Section 1.2.3 of this SOW requiring integration will also require coordination.

- 3.1.2 Coordination applies to activities required to implement the Work, Excluded Work or other Site operations and tasks listed in Section 1.2.3 of this SOW. Due to the variety of Site activities, and the number of persons implementing these activities, it will be necessary for all persons to coordinate and communicate with each other.

For example, coordination will be required to assure that construction schedules are communicated to other person(s) performing work at the Site to avoid work disruptions or delays.

- 3.1.3 As described in Section XIII (Project Coordinators) of the Decree, EPA, the State, the Work Defendants, and those person(s) conducting Excluded Work, shall each designate a Project Coordinator as the focal point for communications. The Project Coordinators shall have the primary responsibility for assuring integration and coordination.

### **3.2 Procedures for Assuring Integration and Coordination**

- 3.2.1 Work Defendants shall participate in technical exchange meetings as appropriate to assure that information (including appropriate schedules, data, plans, designs, reports and specifications) is exchanged and reviewed at all appropriate stages of the Work, Excluded Work, and the other Site operations and tasks listed in Section 1.2.3 of this SOW. These meetings may also be used to: discuss current and planned activities that may impact other person(s) performing work at the Site; and assist in the approval of deliverables by reporting on interim conclusions and build early technical

consensus. Any of the designated Project Coordinators can request a technical exchange meeting.

- 3.2.2 Review Conferences described in Section 6.0 of this SOW shall also be used to assure integration and coordination, as these Conferences provide an opportunity for EPA review of Work Defendant Site activities.
- 3.2.3 In order to assure that necessary design, construction, and operation and maintenance information is available to other persons conducting work or Excluded Work on Site, Work Defendants shall provide these persons access to such necessary information possessed by their design, construction and any other contractor(s) when appropriate. It is anticipated that necessary design, construction, and operation and maintenance information regarding Excluded Work shall be made available to the Work Defendants by the person(s) conducting Excluded Work, when appropriate.
- 3.2.4 Work Defendants shall develop timely notification procedures for Site activities or events which may affect the Work, Excluded Work and the other activities and tasks listed in Section 1.2.3 of this SOW.
- 3.2.5 When necessary, other organizations, including state or local agencies, may attend technical exchange meetings. Invitations to attend shall be coordinated through the Project Coordinators.
- 3.2.6 At EPA's request, Project Coordinators (or their designees) shall participate in Interagency Committee meetings as described in Section XXXVI (State and Local Agency Participation) of this Decree .
- 3.2.7 If Work Defendants fail to adequately or appropriately integrate and/or coordinate materials, equipment, or activities with those persons performing Site operations and tasks listed in Section 1.2.3 of this SOW, or Excluded Work, EPA shall determine the adequate and appropriate actions necessary to assure integration and coordination. It is anticipated that the person(s) conducting Excluded Work will be required to integrate and coordinate their activities with the Work Defendants and other persons performing Site operations and tasks listed in Section 1.2.3 of this SOW.
- 3.2.8 To the extent feasible, EPA shall develop schedules for Excluded Work to be compatible with schedules developed pursuant to this SOW.

## **4.0 MANAGEMENT PLANS**

### **4.1 Objective**

- 4.1.1 The purpose of the management plans is to provide a framework by which this SOW is to be executed. The management plans to be prepared include the following:
  - Work Plan
  - Safety, Health and Emergency Response Plan (SHERP)

- Quality Assurance/Quality Control Plan
- Operations Plan
- Technical Memoranda, if necessary
- Sampling Plans (to be incorporated into the above listed plans as appropriate)

## **4.2 Plans**

### **4.2.1 Work Plan**

The Work Plan shall be the primary plan to control and guide the Work activities of this Decree by the Work Defendants. It shall describe the procedures the Work Defendants will employ to perform the activities required and the specific objectives of these activities in performing the Work.

The staffing element of the Work Plan shall cover all of the Work activities. The personnel assigned to the project shall be presented by discipline and project responsibility. The staffing approach to the construction management and operation activities of the project shall include a preliminary organization for field positions and home office support involvement, as well as a description of coordination procedures among selected contractors and personnel.

The Work Plan shall include a general description of the anticipated phasing of construction activities, if appropriate. The rationale and objectives behind the establishment of the phases shall be stated.

The Work Plan shall include general procedures for the operation of the existing gas collection system during the construction phase(s) of the Work pursuant to Section 1.1.2.4 of this SOW.

The Work Plan shall also discuss the general procedures for the salvage or abandonment, if necessary, of portions of the existing gas collection, drainage and irrigation systems that will not be utilized as part of the Work .

A Progress Report format shall be provided in the Work Plan pursuant to this Decree. It shall be applicable for each of the predesign, design, construction, compliance testing, and operation and maintenance activities of the Work. A standardized incident report format shall be established and provided in the Work Plan.

Sampling Plans shall be included as appendices to the Work Plan for all Predesign sampling activities. Additional sampling plans will be appended as required.

A schedule for predesign sampling activities shall be included in the Work Plan.

#### **4.2.2**

#### **Safety, Health and Emergency Response Plan (SHERP)**

The SHERP shall establish safety, health, and emergency response procedures for all Work activities to be conducted by the Work Defendants. The SHERP shall address both workers at the site and public exposure to releases or spills at and from the site. The SHERP shall address coordination between the various person(s) conducting work at the Site. The SHERP shall be developed in accordance with Section XI (Safety, Health and Emergency Response Plan) of the Decree, and to the extent possible, it shall be consistent with the SHERP implemented for SCM/LMS activities pursuant to the First Decree. The SHERP shall include at least the following basic elements:

- Introduction and Purpose
- Applicable Laws and Regulations
- Onsite Organization and Coordination
- Medical Surveillance Program
- Chemicals of Concern
- Activities Hazard Analysis
- Site Control, Work Zones, and Security Measures
- General Safe Work Practices
- Training
- Personnel Protective Equipment
- Onsite Work Plans
- Standard Operating Safety Procedures
- Communication Procedures
- Monitoring Plan (Personnel and Environment)
- Decontamination Procedures
- Work Disruption Notification Procedures
- Community Safety
- Emergency Response Plan, including:
  - A Contingency Plan
  - Identification and responsibilities of an Emergency Coordinator
  - Coordination with persons or organizations responsible for off-site emergency response (e.g., fire departments)

- Procedures for updating and distributing the SHERP
- Record Keeping
- Requirements for Subcontractors
- Procedures for special activities

EPA's comments on and approval of the Safety, Health and Emergency Response Plan shall not constitute EPA approval of the Health and Safety Protocols and other health and safety portions of this Plan.

#### 4.2.3

##### **Quality Assurance/Quality Control Plan (QA/QC Plan)**

The QA/QC Plan shall establish quality procedures for all activities to be conducted by the Work Defendants. Addenda to the general QA/QC Plan and specific sampling plans shall be prepared as required for specific activities, such as landfill gas characterization activities, and shall be developed pursuant to Section XII (Quality Assurance/Quality Control) of the Decree. The QA/QC Plan shall include the following basic elements:

- Project organization and qualifications of QA/QC manager and staff
- Sampling and sample custody procedures, including the sample site selection rationale
- Analytical methods/procedures
- Analytical/statistical/control procedures, including requirements for accuracy, sensitivity, precision, sample quantities, calibration procedures, preventative maintenance, internal quality control checks, representative samples and data comparability
- Data handling, analysis and reporting
- Data validation procedures
- Routine Monitoring
- Special testing
- Alternative test procedures
- Requirements for Subcontractors
- Procedures for special activities
- Appendices including:
  - A general Construction Quality Assurance Plan in accordance with appropriate portions of EPA/530-SW-86-031 guidelines. This plan shall be revised and attached to the Final Design to address design-specific issues.

If necessary, amendments to appropriate portions of the QA/QC Plan shall be provided with each design package, as per Section 5.3 of this SOW.

#### **4.2.4 Operations Plan**

The Operations Plan shall be prepared, and amended in phases if appropriate, to guide the operations, maintenance and monitoring activities required for the Work. The Operations Plan shall address the integration between the operations of the new system with that of the existing gas control system components, and the integration with Excluded Work. Operations include both maintenance and monitoring of the Work. The Operations Plan shall include the following basic elements:

- Description of the existing gas control, cover and surface water management systems.
- Description of the systems developed pursuant to this Decree
- Integration and coordination requirements of the existing and new system
- Procedures and schedules for the review of contractor submittals
- The format of weekly construction meetings
- Procedures for interpreting the technical and schedule impacts of proposed field changes and contract modifications
- Procedures for documenting field changes
- Procedures verifying and documenting compliance with quality control requirements
- Procedures for design modifications during construction activities including the submittal of Technical Memoranda pursuant to Section 4.2.5 of this SOW
- Description of procedures to transition from the existing system to the new system pursuant to Section 1.1.2.4 of this SOW
- Operational procedures
- Operational emergency response
- Maintenance procedures and schedules
- Compliance monitoring procedures and schedules
- Parts and equipment inventory
- Well abandonment procedures
- Equipment decontamination procedures
- Equipment salvage procedures

- **Formats for:**
  - Incident Report
  - Compliance Testing Report
  - Noncompliance Notification
  - Compliance Action Plan
  - Noncompliance Correction Plan
  - Progress Reports subsequent to approval of the Construction Completion Report
- **Appendices with:**
  - Sampling Plans for each of the monitoring and sampling activities
  - Management Information System (MIS) Users Manual
  - Compliance Testing Plan to guide compliance testing activities

#### **4.2.5 Technical Memoranda (TM)**

The primary mechanism for modifying final plans and designs after approval shall be through submittal of Technical Memoranda. Field changes which do not necessitate material changes to the design shall be made by agreement of the Project Coordinators.

In the event that Work Defendants or EPA determine that modification of an approved plan or design package is necessary, the following procedure shall be followed:

- Work Defendants shall submit a written request for the modification to the EPA Project Coordinator including:
  - Reasons for the proposed modification
  - Proposal for submittal of either a Minor or Major TM, as appropriate
  - Outline and 10% TM
- Upon EPA approval of the request and determination of whether a Minor or Major TM is appropriate, Work Defendants shall submit the TM pursuant to the schedule set forth in Section 7.7 of this SOW.
- In addition to the Outline and 10% TM submitted with the request, Minor TM shall be submitted for review at two levels of completeness (Prefinal-90% and Final-100%). If EPA determines that the Prefinal-90% Minor TM is sufficient, EPA may approve the Prefinal-90% Minor TM as Final.
- In addition to the Outline and 10% TM submitted with the request, Major Technical Memoranda shall be submitted for review at three levels of completeness (Intermediate-60%, Prefinal-90% and Final-100%). If EPA determines that the Prefinal-90% Major TM is sufficient, EPA may approve the Prefinal-90% Major TM as Final.

- The TM shall address the specific requirements, as appropriate, listed in this SOW for the specific type of plan or design being modified. For example a TM addressing design modifications, shall address the specific requirements set forth in Section 5.3 of this SOW, as appropriate. Each TM shall include at least the following types of information, completed to a level compatible with the review stage:
  - General description of the modification, including the purpose of its implementation
  - General arrangement of the modification showing its location
  - Typical details and cross sections for the modifications
  - Detailed Plans and Specifications, as appropriate
  - Description of tasks necessary to assure appropriate site activities occur through coordination and integration of the new activities with operation of existing systems
  - Engineering calculations which support the modification configuration, as appropriate
  - Amendments to the SHERP, QA/QC Plan, Sampling Plans, or Operations Plan to accommodate new or modified activities, as appropriate

#### 4.2.6 Sampling Plans

Sampling Plans, whether for monitoring and sampling activities or for other activities, shall comply with EPA guidelines and shall include at least the following components:

- Sampling rationale and description of techniques used in selecting sampling sites (e.g., random, stratified, etc.)
- Specific sampling, preservation, and preparation procedures used, extraction methods, analytical references or descriptions (including sample size, types of sample containers, applicable samplers, etc.). For nonstandard or modified sampling methods, detailed procedures with appropriate references are required.
- Sampling program organization, if needed
- Description of sample container and sampler cleaning procedures for each type of container to be used following EPA guidelines or other appropriate procedures
- Procedures to avoid sample contamination
- Sample preservation methods and holding times, following EPA SW-846 guidelines or other appropriate references
- Sample transportation requirements (following EPA and Department of Transportation guidelines, as applicable)



- Chain-of-Custody procedures, following the National Enforcement Investigations Center Policies and Procedures Manual (as revised), and the National Enforcement Investigations Center Manual for the Evidence Audit, (as revised), as well as EPA SW-846 guidelines, and other appropriate references
- Procedures and responsibility for data validation, as appropriate

## 5.0 ACTIVITIES

### 5.1 Introduction

5.1.1 This Chapter presents the following Work activities:

- Predesign Activities
- Design Activities
- Construction Activities
- Compliance Testing Activities
- Operation and Maintenance Activities
- Work Completion Activities

### 5.2 Predesign Activities

Except as modified by the Work Plan, the predesign activities shall include the following:

#### 5.2.1 Existing System Conditions and Performance Data Evaluation

This activity addresses evaluation of existing information related to existing gas control, cover and surface water management system conditions, capacity and performance at the Site and other comparable disposal facilities as appropriate.

5.2.1.1 To the extent possible, existing systems, conditions and performance data shall be determined from data currently being collected and compiled as part of SCM/LMS and RI/FS activities. The predesign program shall include special field investigations or monitoring programs to supplement that existing data, as appropriate for component selection, predesign and design activities.

5.2.1.2 The evaluation of conditions and capacities of the existing systems shall include a determination of their compatibility and integration potential with new systems being planned under this SOW. This evaluation shall address the longevity and maintenance requirements of existing systems compared to new systems.

**5.2.1.3** Portions of the existing systems which may be incorporated into the Work shall be described including the manner in which they may be integrated into the Work. Also, descriptions will be provided for existing systems which will not be utilized, including the manner in which they will be phased out of operation and abandoned in place or removed.

**5.2.2 Subsurface and Geologic Information Evaluation**

This activity addresses the evaluation of subsurface information to define the limits of the trash and foundation conditions for the Cover System, and characterize geologic conditions which will impact perimeter gas control well and monitoring probe locations and depths.

**5.2.2.1** Subsurface and geologic information required for the predesign activities should be adequate to perform evaluation and selection processes, if appropriate, and determine requirements for detailed design activities. To the extent possible, this information should be determined from data developed during SCM/LMS and RI/FS activities. If necessary, the predesign program may include special field investigations to supplement that existing data.

**5.2.2.2** The evaluation of subsurface and geologic conditions shall include, as necessary, the following:

- Determination of the limits of trash at landfill perimeters
- Determination of geotechnical properties of materials which will form the foundation for buttresses, the bottom layer of cover, and structures or tanks associated with gas and liquid conveyance systems
- Determination of geologic properties which could affect gas migration pathways and the depth of subsurface liquids at the landfill perimeter

**5.2.3 Landfill Gas Characterization**

This activity addresses characterization of the landfill gas to be collected and treated. The characterization will be conducted by the Work Defendants for performance of the Work and for utilization by the person(s) conducting the TDF item of the Excluded Work. A stand-alone report suitable for delivery to those person(s) summarizing the results of this study shall be submitted as an appendix to the Predesign Report as described in Section 5.3.8.9 of this SOW.

**5.2.3.1** Quality characterization of the South Parcel landfill gas shall include the following:

- The distribution of various landfill gas qualities
- The fluctuation of gas qualities by season and changing trends with time
- The range of concentrations of methane and oxygen which the Thermal Destruction Facility must be capable of handling and the potential for upset conditions to occur

- Trace gases which influence design and operation of the Thermal Destruction Facility

**5.2.3.2 Gas quantity estimates for the South Parcel shall include consideration of the following:**

- Gas generation and collection rate trends over time
- The range of landfill gas generation rates
- The spatial distribution of landfill gas generation rates throughout the landfill
- The range of potential landfill gas collection rates
- Gas quantities contributed by other activities at the site such as off-gas from liquids treatment facilities

**5.2.3.3 The estimates shall consider the relationship between gas quality and collection rates. The impact of various gas extraction rates on gas quality in terms of methane and oxygen shall be evaluated.**

**5.2.4 Selection Criteria Determination**

This activity addresses the establishment of selection criteria to be utilized during the system selection for each component of the Work. Selection criteria shall be determined based on the objectives and Performance Standards identified in Section 1.2 of this SOW.

**5.2.4.1 Selection criteria shall be established for each major element of the Work Systems, as necessary, including:**

- Gas Control System
- Cover System
- Surface Water Management System

**5.2.5 Alternatives Identification**

This activity addresses the identification of configuration alternatives to be considered for each major component of the Work and the criteria to be used for final selection for components where more than one alternative is considered. Selection of components and the phasing procedures shall be determined based on an evaluation of how alternatives satisfy the objectives stated in Section 1.2 of this SOW. Alternatives evaluations should address the issues described below.

**5.2.5.1 Gas Control System**

Gas Control System alternatives analysis shall examine a range of collection system concepts. These may include surface collectors, interior wells, slope wells, and boundary wells as appropriate for the integrated performance of gas control and cover systems. Consideration for maximizing the potential for liquids collection shall be evaluated. A comparative evaluation of a range of construction

materials and construction techniques shall be performed. It is anticipated that, wells, probes and surface collectors similar to those illustrated in Figures B-2, B-3, B-4 and B-5; and those which were evaluated during SCM/LMS activities performed pursuant to the First Decree may be utilized subject to EPA approval.

#### **5.2.5.2 Cover System**

A number of potential landfill cover systems may be feasible for the Site. The final selection process shall include a comparison of utilizing clay versus a synthetic material for the low permeability layer as conceptually illustrated in Figures B-4 and B-5. An evaluation of combinations of materials for the various layers of the Cover System may be performed. Conditions and performance characteristics of the existing landfill cover may be incorporated into the evaluation of additional requirements. The analyses may consider the distribution of different types of cover systems over the Site.

Selection of the irrigation system shall consider minimization of water use including consideration of potential water sources (potable or reclaimed). A range of water delivery systems may be evaluated including impact-head sprinklers, spray heads, and drip emitters.

Cover protection alternatives to be evaluated shall include a variety of seed mixes and synthetic materials. The planting of shrubs and trees may be evaluated where feasible. The evaluation may consider vegetation that is compatible for growth on the surface of the cover, without the need for a special, additional vegetative soil layer. An evaluation of the benefits and disadvantages of vegetation and synthetic materials may be part of the alternatives analysis. An assessment of community acceptance shall be part of this evaluation.

#### **5.2.5.3 Surface Water Management System**

In selecting the type, size, and location of the drainage structures making up the Surface Water Management System, the design storm and storm events resulting in structure overflows shall be evaluated. Slope drain analysis may examine a range of materials and configurations; for example, steel or plastic pipe and open channels constructed of asphalt or concrete with flexible joints. The analysis shall incorporate an assessment of off-site impacts in terms of the quantity and quality of the run-off leaving the site and the quantity and quality of sediment and debris conveyed off-site.

#### **5.2.5.4 In addition to the types of physical performance characteristics of each System described above, alternatives analyses may also consider the most appropriate construction phasing sequence. Factors which may be considered include:**

- Existing gas migration and emission conditions
- Location of Systems with respect to residences
- Benefits of observing performance prior to initiating subsequent phases

- Potential requirements that certain elements, such as perimeter preparation be completed before other elements can be started
- Schedules for related activities which may be planned as part of the SCM/LMS program
- Integration and coordination with Excluded Work
- Integration and coordination with other Site activities including those listed in Section 1.2.3 of this SOW

**5.2.5.5** To the greatest extent possible, information gained during SCM/LMS activities shall be incorporated into alternatives selection. Field studies performed at other landfill sites, if appropriate, may also be utilized. Section 5.2.6 of this SOW describes types of additional special engineering calculations and data collection and analyses which may be necessary in order to evaluate alternatives.

**5.2.6 Data Collection and Engineering Calculations**

This activity addresses the engineering calculations, including the collection of additional information and data necessary to make the final selections for components where more than one option is being considered.

**5.2.6.1** If required, special data gathering efforts should be identified as early as possible to minimize impacts to the predesign schedule. To the extent possible, these requirements should be identified during development of the Work Plan and incorporated into activities described in Section 5.2.1 through 5.2.5 of this SOW. Testing or evaluation of materials or methods may be necessary during later stages of the predesign process.

**5.2.6.2** Analyses of alternatives, when appropriate, should include adequate engineering analyses to determine the degree to which selected system components satisfy the selection criteria. Examples of types of analyses which may be necessary include:

- Slope stability calculations of cover or foundation conditions for static and dynamic conditions
- Gas collector well or surface collection system analyses to determine spacing and/or depth requirements anticipated to satisfy performance requirements
- Evaluation of construction equipment, personnel and material requirements to accurately estimate costs
- Potential borrow sources for cover soils
- Longevity evaluations of system components to project anticipated long-term operation and maintenance requirements for alternatives. These evaluations shall address both proposed new systems and existing systems, if any, that may be incorporated into the Work

#### **5.2.7 System Selection**

This activity addresses the selection of the preferred alternative for each component of the Work including a general description of any anticipated construction phasing.

5.2.7.1 The selection process shall be based on an evaluation of how alternatives satisfy the objectives stated in Section 1.2 of this SOW.

5.2.7.2 The selection process shall address long-term operation, maintenance and monitoring considerations.

#### **5.2.8 Predesign Report Preparation**

The results of the predesign activities shall be used to prepare a Predesign Report. When approved by EPA, this report shall direct the design activities. The Predesign Report shall include the following elements:

##### **5.2.8.1 Introduction and Purpose**

- A description of the Predesign Report contents, structure, and objectives

##### **5.2.8.2 General Description of the Selected Components**

- The types of Gas Control System and Cover System Components selected for various areas of the Site and the rationale for that selection
- The selected Surface Water Management System alternative and the manner in which its design and construction will be integrated with the Gas Control and Cover Systems
- A general description of construction phasing, if any

##### **5.2.8.3 Presentation of Selection Criteria**

A presentation of the selection criteria applied for the development of the selected Systems which addresses the objectives set forth in Section 1.2 of this SOW.

##### **5.2.8.4 Summary of the information obtained from field investigations and other studies which will impact design activities; such as:**

- Existing system conditions and performance data, including the cover, wells, probes, gas collection pipes, and flare stations
- Subsurface conditions including the limits of trash at landfill perimeters and with respect to the property line
- Geologic conditions which may affect well and probe spacings and depths

- A slope stability evaluation assessing the stability of the landfill slopes with the selected Cover System applied under static and dynamic conditions
  - Well construction techniques and materials
  - Well spacing and location for both interior and perimeter gas extraction wells
  - Cover system cross sections
  - Gas surface collector configurations
- 5.2.8.5 A presentation of any additional factors considered in formulating the selected systems
- 5.2.8.6 Description of Alternatives Evaluated  
Alternative components, configurations, alignments, locations, and operation and maintenance considerations shall be evaluated for:
- Collection System Components
  - Cover System Components
  - Surface Water Management System Components
- 5.2.8.7 Detailed descriptions of the selected systems, including:
- The selected gas surface collector, well and probe construction techniques, materials and locations
  - Anticipated requirements for pumping of liquids from wells or probes
  - Special perimeter preparation requirements
  - Cross sections for the selected cover systems for specific portions of the site
  - Selected gas and liquid conveyance pipeline alignments
  - Selected configuration for the surface water management control system, including failure modes for storms larger than design storms
  - Selected irrigation system components and distribution network for specific areas of the Site
  - Selected type(s) of vegetation and/or synthetic cover system(s) for specific areas of the Site
  - Details and cross sections to show how construction will be integrated with adjacent conditions at the time of

construction with respect to construction phasing and Excluded Work

- Integration requirements where existing facilities will be integrated into the selected systems, abandoned or removed
- Requirements where new systems will be connected to existing systems
- Provisions to be included to assure access required for construction, maintenance and monitoring of the Work
- Utilization and disposition of existing system equipment and hardware
- Preliminary discussion of construction contractor procurement procedures for the different system components
- Observations, monitoring procedures and criteria to be used to evaluate constructed system performance and determine where additional components may be necessary

**5.2.8.8 Preliminary construction schedule and phasing concepts, including:**

- The general manner in which construction activities will be phased, if appropriate
- Procedures for establishing the construction schedule for construction activities including areas where construction of well, probe or surface collector installations or hookups may be phased to determine the most appropriate spacings, and depths to satisfy conditions at specific locations
- Preliminary discussion of the manner in which the geographic areas corresponding to each construction phase shall be determined for the purpose of assuming responsibilities within each area for operation, maintenance and monitoring activities related to the Work including SCM activities previously being conducted under the First Decree per Section 1.1.2.4 of this SOW
- Preliminary discussion of the manner in which the responsibility for operation, maintenance and monitoring of Site facilities related to the Work but outside of defined geographic areas corresponding to each construction phase (such as the existing flare stations) will be assumed by the Work Defendants.
- The manner in which design and construction of the Work will be integrated and coordinated with other site activities including those identified in Section 1.2.3 of this SOW, as appropriate



- Identification of any existing Site facility not related to the Work but necessary for Site work including activities identified in Section 1.2.4 of this SOW, that may be altered, destroyed or abandoned during each phase of construction. Consideration for the timing of the replacement of such facilities shall be addressed.

5.2.8.9 A stand-alone report presenting final estimates of gas quality and quantity suitable for TDF design by person(s) conducting the TDF item of Excluded Work. This report shall present the results of the predesign activities listed in Section 5.2.3 of this SOW along with TDF requirements with respect to the Work Systems. The report shall also set forth requirements for TDF integration and coordination procedures.

### **5.3 Design Activities**

- 5.3.1 The design activities shall result in the preparation of the Final Design Documents necessary for the construction of the Work and for the NSSP Excluded Work.
- 5.3.2 The design shall present assurance that Performance Standards as described in Section 1.2.2 of this SOW are analyzed and incorporated into the design. Design parameters dictated by these Performance Standards shall be identified.
- 5.3.3 The design shall be submitted for review at four (Preliminary-30%, Intermediate-60%, Prefinal-90% and Final-100%) levels of completeness.
- 5.3.4 Except as modified by the Predesign Report, the Preliminary-30% Design Package shall include at least the following:
  - 5.3.4.1 Design Drawings including:
    - Index Sheet
    - Plan of existing Site conditions including edge of trash
    - Property boundary and survey control plan
    - Overall Site general arrangement plan
    - Foundation layer grading plan
    - Perimeter system general arrangement plan(s)
    - Details and sections of main gas control features
    - Details and sections of main cover and access road features
    - Drainage control plan, general direction of flow control
    - Irrigation system plan, main location only
    - Plan showing how existing systems will be modified and system integration locations, perimeter modifications only
    - Details and sections for existing system modification, perimeter modifications only
    - Monitoring system plan, perimeter only
    - Monitoring system details and section, perimeter only
  - 5.3.4.2 Design Specifications including:

- Table of contents for technical specifications

**5.3.4.3 Design calculations including:**

- Table of contents for calculation appendix to Design Report
- Basis for survey control
- Gas influence calculations for specific perimeter system locations
- General gas influence calculations for slope systems
- Final range of gas quantity and quality estimates
- Final condensate and pumped liquid quantity estimates
- Preliminary gas migration control modeling
- Final landfill settlement estimates
- Static and seismic stability analyses at landfill perimeter

**5.3.4.4 Design Report including:**

- Table of contents
- Description of existing systems
- General design concept and criteria
- Description of perimeter preparation procedures
- Description of overall surface water management plan
- General description of monitoring systems
- Description of each completed calculation including the basis of parameters and adequacy of results
- Identification of any permits, regulatory agency approvals and access agreements required for the Work and the NSSP item of Excluded Work including the procedures and anticipated schedules to obtain them prior to submittal of the Preliminary Design Package
- Preliminary description of integration requirements
- Identification of any existing Site facilities as defined in Section 1.1.2.5 of this SOW, that will be altered, destroyed or abandoned during construction.
- General construction/procurement process
- Listing of Performance Standards and a discussion of how each Performance Standard is expected to be satisfied
- Description of off-site facilities required
- Description of off-site facilities impacted
- Table of Contents for the Construction Quality Assurance Plan
- Identification of the specific elements of the design submittal related to Excluded Work

**5.3.5 Except as modified by the Predesign Report, the Intermediate-60% Design Package shall include at least the following:**

**5.3.5.1 Design Drawings including:**

- Drawings from Preliminary-30% Design, revised as appropriate
- Typical details and cross sections for perimeter preparation and access requirements
- Details and section of main cover and access road features

- Miscellaneous gas control, cover and access road details and sections
- Main surface water management system details and sections
- Miscellaneous surface water management system details and sections
- Vegetation plan
- Irrigation system plan
- Monitoring system plan
- Main monitoring system details and sections
- Mechanical and electrical instrumentation sheets
- Plan showing how existing systems will be modified and system integration locations
- Details and sections for existing system modification
- Integration details and sections
- Geographical phasing general arrangement plan
- Plan designating geographic areas corresponding to each construction phase for the purpose of assuming responsibilities within each area for operation, maintenance and monitoring activities related to the Work including SCM activities previously being conducted under the First Decree per Section 1.1.2.4 of this SOW
- Plans and details for the repair or replacement of any existing Site facilities as defined in Section 1.1.2.5 of this SOW, that will be altered, destroyed or abandoned during construction.

#### 5.3.5.2 Design Specifications including:

- Revised table of contents for technical specifications
- Preliminary specifications for main gas control and cover features
- Preliminary specifications for modifying existing systems

#### 5.3.5.3 Design Calculations including:

- Items from Preliminary-30% Design, revised as appropriate
- Final Gas emission and migration modeling results
- Static and seismic stability for proposed configurations
- Hydrologic calculations used to determine flow rates for the Surface Water Management System design
- Drainage structure hydraulic calculations
- Calculations necessary for the repair or replacement of any existing Site facilities as defined in Section 1.1.2.5 of this SOW, that will be altered, destroyed or abandoned during construction.
- Specific gas influence calculations for slope systems
- Evaluation of landfill settlement effects on slope systems
- Infiltration through and erosion of cover
- Access road design
- Slope stabilization structure design, if any
- Gas header calculations

#### 5.3.5.4 Design Report including:

- Items from Preliminary-30% Design Report, revised as appropriate
- Descriptions of major Gas Control and Cover Systems
- Description of overall surface water management plan
- Description of the specific manner in which Work construction activities will be integrated and coordinated with other site activities including those identified in Section 1.2.3 of this SOW
- Description of how existing systems will be modified
- Description of procedures for the repair or replacement of any existing Site facilities as defined in Section 1.1.2.5 of this SOW, that will be altered, destroyed or abandoned during construction. Consideration for the timing of repairs or replacement of such facilities shall address minimization of the interruption of the control or function provided by those facilities.
- General description of requirements at points of integration
- General description of monitoring systems
- Construction monitoring procedures for:
  - verifying system performance
  - determining requirements for design modifications
- Description of each of the completed calculations including the basis for parameters and adequacy of results
- Discussion of how each performance standard is expected to be satisfied
- Preliminary construction schedule including phasing:
  - The specific manner in which construction activities will be phased, if appropriate
  - The schedule for construction activities, if any, where construction of well, probe or surface collector installations or hookups may be phased to determine the most appropriate spacings, and depths to satisfy specific location conditions
  - Schedule by which responsibility for operation, maintenance and monitoring of Site facilities related to the Work but outside of defined geographic areas corresponding to each construction phase (such as the existing flare stations) will be assumed by the Work Defendants
  - Schedule for assuming responsibilities within each geographic area for operation, maintenance and monitoring activities related to the Work including SCM activities previously being conducted under the First Decree per Section 1.1.2.4 of this SOW
- Description of staging area requirements, size and location, and layout yard for the construction contractor(s)
- Preliminary Construction Quality Assurance Plan in accordance with appropriate portions of EPA/530-SW-86-031 guidelines including procedures for constructing the low permeability cover materials.
- Identification of the specific elements of the design submittal related to Excluded Work

**5.3.6 Except as modified by the Predesign Report, the Prefinal-90% Design Package shall include at least the following:**

**5.3.6.1 Design Drawings including:**

- Drawings from Intermediate-60% Design, revised as appropriate
- Miscellaneous gas control, cover and access road details and sections
- Vegetation and irrigation system details and sections
- Miscellaneous monitoring system details and sections

**5.3.6.2 Design Specifications including:**

- Final technical specifications for all items to be constructed
- General conditions specifications, including requirements for coordination and integration
- Specifications and schedules for the repair or replacement of any existing Site facilities as defined in Section 1.1.2.5 of this SOW, that will be altered, destroyed or abandoned during construction.
- The special provisions section of the specifications shall identify the contractors' responsibilities while on-site and special contractor requirements such as quality control procedures, health and safety precautions, and coordination requirements with regard to Excluded Work
- Special conditions, construction and equipment specifications for handling of liquids encountered during well and probe installations

**5.3.6.3 Design Calculations including:**

- Items from Intermediate-60% Design, revised as appropriate
- Detailed design calculations for gas and liquid collection systems
- Miscellaneous civil calculations
- Minor drainage structure calculations
- Irrigation system calculations
- Preliminary quantity estimates

**5.3.6.4 Design Report including:**

- Items from Intermediate-60% Design, revised as appropriate
- Completion of detailed description of Gas Control, Cover and Surface Water Management Systems
- Descriptions of Irrigation and Vegetation systems
- Description for each new calculation
- Copies of required permits, regulatory agency approvals, and access agreements obtained; or schedules for obtaining any outstanding permits, regulatory agency approvals and access agreements prior to construction start

- Final construction schedule, including phasing
- Final Construction Quality Assurance Plan
- Format for the Construction Completion Report
- Identification of the specific elements of the design submittal related to Excluded Work

**5.3.6.5 Bid Packages:**

- Bid package(s) for work
- Bid package for NSSP Excluded Work excluding those portions of the General Conditions not appropriate for preparation by the Work Defendants, as determined by EPA

**5.3.7 Except as modified by the Predesign Report, the Final-100% Design Package shall include at least the following:**

**5.3.7.1 Design Drawings including:**

- Revision to Prefinal-90% Design Drawings, as appropriate

**5.3.7.2 Design Specifications including:**

- Revision to Prefinal-90% technical and general condition Specifications, as appropriate
- Revision to Prefinal-90% NSSP bid package, as appropriate

**5.3.7.3 Design Calculations including:**

- Revisions to Prefinal-90% calculations, as appropriate
- Final quantity estimates

**5.3.7.4 Design Report including:**

- Revisions to Prefinal-90% Design Report, as appropriate

**5.3.7.5 Bid Packages:**

- Revisions to Bid package(s) for work, as appropriate
- Revisions to Bid package for NSSP Excluded Work, as appropriate

**5.3.7.6 Amendments to the SHERP and QA/QC Plans if required to:**

- Incorporate designed systems
- Provide for methods to measure compliance with Performance Standards
- Incorporate Final Construction Quality Assurance Plan

**5.3.7.7 Amendments to the Operations Plan if required to:**

- Incorporate new system descriptions
- Provide for methods to measure compliance with Performance Standards
- Incorporate new systems into existing MIS
- Incorporate new monitoring and maintenance requirements and schedules

- Incorporate new Sampling Plans as necessary for monitoring requirements

#### **5.4 Construction Activities**

- 5.4.1** Primary construction contractor(s) selection shall be completed and construction activities shall begin, pursuant to the construction schedule presented in the Final Design, within sixteen (16) weeks of EPA approval of the Final Design. The specifications shall identify the contractor(s)' responsibilities while on-Site and special requirements such as communication procedures, health and safety precautions and quality control procedures.
- 5.4.2** Construction activities shall be guided by the Final Design and the Management Plans. The Work Defendants shall provide technical supervision and construction management during the Work construction activities. Schedules and procedures for construction activities shall be presented in the Final Design and Operations Plan. Except as modified by the Final Design and Operations Plan, construction activities shall include:
- Construction
  - First System Inspection
  - Punch list activities as necessary
  - Reinspection(s) as necessary
  - Pre-startup testing
  - Startup testing
  - Final Inspection
  - Punch list activities as necessary
  - Reinspection(s) as necessary
  - System Startup
- 5.4.3** If Work Defendants or EPA determine that a design modification is necessary during construction, a Technical Memorandum shall be submitted by the Work Defendants to EPA using procedures set forth in Section 4.2.5 of this SOW and in the Operations Plan.
- 5.4.4 Construction As-Built Report**  
The Construction As-Built Report shall be prepared and submitted to EPA pursuant to the schedule in Section 7.4.4 of this SOW and shall include at least the following items:
- Introduction
  - As-built plans and specifications
  - QA/QC records
  - Summary of design changes implemented by the TM process
  - Revised Operations Plan as required
  - Professional Engineer certification that Construction Activities have been completed according Design

## **5.5 Compliance Testing Activities**

**5.5.1** The overall objective of the compliance testing activities is to demonstrate that the constructed Work Systems have achieved compliance with the Performance Standards. Compliance Testing may begin after approval of the Construction As-Built Final Report and the Compliance Testing Plan. Compliance testing activities shall be performed in consecutive 90-day Compliance Testing Periods.

**5.5.2 Compliance Testing Plan**  
Work Defendants shall submit a Compliance Testing Plan as an appendix to the Operations Plan. The Compliance Testing Plan shall describe the procedures to be used to demonstrate compliance and guide the compliance testing activities and acceptance procedures. The Compliance Testing Plan shall be submitted at three levels of completeness (Outline, Preliminary and Final) concurrently with the equivalent Construction As-Built Report submittals. The Compliance Testing Plan shall include at a minimum:

- Identification of Performance Standards which are subject to compliance testing
- Discussion of overall approach to demonstrating compliance with identified Performance Standards, including the manner in which statistical and temporal variations and non-systemic performance variances will be interpreted
- Description of the specific monitoring procedures that will demonstrate compliance with Performance Standards, including monitoring frequency within the compliance testing periods
- Sampling Plans, as necessary
- Monitoring schedule, taking into account personnel and equipment logistics and integration and coordination with other Site activities
- Specific coordination procedures for any EPA split or replicate sampling activities

**5.5.3 Compliance Testing Request**  
After EPA approval of the Final Construction As-Built Report, and the Final Compliance Testing Plan, Work Defendants shall submit a Compliance Testing Request that specifies a start date for the first compliance testing period.

**5.5.4 Compliance Testing Period**  
Compliance testing shall occur in consecutive 90-day Compliance Testing Periods. Compliance testing shall be conducted pursuant to specific procedures as set forth in the Compliance Testing Plan. The following general procedures shall be followed:

**5.5.4.1** A Compliance Testing Period shall be considered successful if, pursuant to procedures set forth in the Compliance Testing Plan, Work Defendants demonstrate that all Performance Standards identified in the Compliance Testing Plan have been attained under normal operating conditions as set forth in the Operations Plan and maintained pursuant to Section 5.6 of this SOW.



- 5.5.4.2** Monitoring and sampling to demonstrate compliance may be conducted more than once during the Compliance Testing Period pursuant to schedules set forth in the Compliance Testing Plan
- 5.5.4.3** In the event that monitoring shows noncompliance pursuant to procedures set forth in the Compliance Testing Plan, activities including but not limited to the following may be performed during the Compliance Testing Period:
- Additional monitoring and/or sampling, as necessary, prior to any other activities to eliminate the possibility of statistical aberration or sampling errors
  - Adjustments to controls which may alter the performance of the Site Systems
  - Additional construction activities
- 5.5.4.4** With regard to perimeter probe monitoring, Work Defendants must demonstrate that all probes are in compliance concurrently. In the event that one or more probes is out of compliance during a particular sampling round within the Compliance Testing Period, Work Defendants may perform activities pursuant to Section 5.5.4.3 of this SOW. Following completion of such activities the Work Defendants may either:
- Monitor all perimeter probes and demonstrate that all probes are in compliance for that sampling round; or
  - Demonstrate that any activities performed pursuant to Section 5.5.4.3 of this SOW affect only a limited number of probes, and that those affected probes are in compliance.
- 5.5.4.5** With regard to grid survey monitoring, Work Defendants shall demonstrate that each grid is in compliance during the Compliance Testing Period. In the event that one or more grids is out of compliance during the Compliance Testing Period, activities pursuant to Section 5.5.4.3 of this SOW may be performed. Following completion of such activities the Work Defendants shall do the following:
- If a grid is located on the perimeter of the landfill, monitoring must be performed to show that the grid is in compliance, and that the perimeter probes adjacent to the grid are in compliance concurrently.
  - If a grid is not located on the perimeter of the landfill, monitoring must be performed to show that the grid is in compliance.

#### **5.5.5 Compliance Testing Reports**

A Compliance Testing Report shall be submitted by the Work Defendants no later than six (6) weeks after conclusion of each Compliance Testing Period. The format of the Compliance Testing Report shall be presented in the Operations Plan and shall include at a minimum:

- A statement as to whether the Compliance Testing Period was successful or unsuccessful
- A summary of monitoring and other activities related to compliance testing conducted during the Compliance Testing Period
- A summary of monitoring and other data collected during the Compliance Testing Period including locations and sampling dates for each data point or set of data points relating to System performance or compliance testing.
- A summary of operating data, as necessary, relating to System performance or compliance testing
- A summary of all noncompliance times and locations, including the nature of any noncompliance such as operational upsets or maintenance shutdowns
- A summary of activities performed pursuant to Section 5.5.4.3 of this SOW
- A summary of subsequent monitoring and other data collected for each noncompliance
- Maps and figures necessary to demonstrate geographical or temporal trends with respect to compliance
- An explanation of any noncompliance which the Work Defendants determine is due only to a statistical variation or non-systemic variance (such as operational variation) and corrective actions planned
- A description of activities planned for the next Compliance Testing Period

#### **5.5.6 Within forty-five (45) days of receipt of the Compliance Testing Report for the second of two consecutive successful Compliance Testing Periods, EPA shall notify the Work Defendants whether Compliance Testing Activities have been successfully completed in accordance with this Decree. Upon receipt of such notification that two consecutive successful Compliance Testing Periods have been completed, Compliance Testing Activities shall be replaced by Operation and Maintenance Activities pursuant to Section 5.6 of this SOW. In making its determination of whether Work Defendants have completed two consecutive successful Compliance Testing Periods, EPA may consider factors including but not limited to the following:**

- Monitoring data collected by Work Defendants relating to System performance and compliance testing

- Other System performance and operational data relating to compliance testing
- The location, nature and duration of any noncompliance such as operational or maintenance upset during the Compliance Testing Period
- Activities conducted or planned to correct any noncompliance
- Geographical or temporal trends in data, including any data collected during operation of the System during Construction Activities
- The potential for statistical aberrations or sampling errors
- Other information related to System performance such as gas modeling if appropriate
- The potential effect of other Site activities, including Excluded Work, on compliance testing

**5.5.7 Compliance Date**

The Compliance Date shall be defined as the date of the beginning of the first of the two consecutive successful Compliance Testing Periods.

**5.5.8 Construction Completion Report**

Three (3) weeks after EPA notice that Compliance Testing Activities have been successfully completed, the Work Defendants shall submit the Construction Completion Report to EPA. The format of the Construction Completion Report shall be presented in the Final Design Report and shall include at a minimum:

- Introduction
- Revised As-Built Plans and specifications reflecting any modifications made to the Work Systems as part of the Compliance Testing Activities, as necessary
- Revised Operations Plan reflecting any changes to operational procedures as a result of Compliance Testing Activities, as necessary
- Professional Engineer certification that Work has been completed according to design, and that As-Built Drawings are accurate

**5.6 Operation and Maintenance Activities**

Operation & Maintenance including monitoring activities shall be conducted for a period of three (3) years after the Compliance Date.

**5.6.1** The Operations Plan shall establish the activities required to operate, maintain, and monitor the Work Systems.

**5.6.2** The Operations Plan shall address the integration and coordination of the Operation and Maintenance activities with the ongoing Site activities listed in Section 1.2.3 of this SOW.

**5.6.3** If at any time during the Operation and Maintenance, the Work Defendants fail to meet any Performance Standard, the Work Defendants shall:

**5.6.3.1** Take all immediate steps necessary to protect public health and safety and the environment

**5.6.3.2** Submit a written Noncompliance Notification to EPA within five (5) days of receipt of the information indicating the noncompliance event. The format of the Noncompliance Notification shall be presented in the Operations Plan and shall include at a minimum:

- The time and location of the noncompliance event
- The nature of the noncompliance event including quantitative monitoring data
- Identification of the Performance Standard(s) that were not complied with
- Description of the activities already performed to verify the monitoring data or to remedy the noncompliance
- Additional monitoring data necessary to demonstrate compliance if compliance is achieved and maintained within five (5) days of receipt of the information indicating the noncompliance event

In the event that compliance is attained and maintained within five (5) days of receipt of the information indicating the noncompliance event, no further action will be required after submittal of the Noncompliance Notification.

**5.6.3.3** In the event that compliance is not attained and maintained prior to submittal of the Noncompliance Notification, the Work Defendants shall submit a Compliance Action Plan within fifteen (15) days of receipt of the information indicating the noncompliance event. The format of the Compliance Action Plan shall be presented in the Operations Plan and shall include at a minimum:

- The information presented in the Noncompliance Notification and any additional information or clarification related to that information.
- Description of the activities necessary to attain compliance, including plans, specifications and calculations as necessary
- A schedule for performance of the activities necessary to attain compliance, including the date that compliance is expected to be demonstrated and the submittal date of the Noncompliance Correction Report

In the event that compliance is attained and maintained after submittal of the Noncompliance Notification and within fifteen (15) days of receipt of the information indicating the noncompliance event, a Compliance Action Plan shall not be required, however a Noncompliance Correction Report shall be submitted in its place.

**5.6.3.4** In the event that compliance is not attained and maintained prior to submittal of the Compliance Action Plan, the Work Defendants shall perform the activities pursuant to the Compliance Action Plan. Work Defendants shall commence performance of such activities upon written approval of the Compliance Action Plan by EPA. Work Defendants may commence performance of the activities described in the Compliance Action Plan upon verbal authorization to begin such activities by the EPA Project Coordinator. Such verbal authorization shall not constitute approval of the Compliance Action Plan or the schedules set forth in the Compliance Action Plan.

**5.6.3.5** If compliance is attained, the Work Defendants shall submit a Noncompliance Correction Report pursuant to the schedule set forth in the Compliance Action Plan or as provided for in Section 5.6.3.3 of this SOW. The format of the Noncompliance Correction Report shall be presented in the Operations Plan and shall include at a minimum:

- Description of the activities performed pursuant to the Compliance Action Plan
- Description of any additional activities performed
- The date compliance was demonstrated
- Monitoring data that shows how compliance was achieved and maintained
- Any modifications to the As-Built Drawings, Operations Plan or any other Plan, as necessary

**5.6.3.6** In the event that compliance is not achieved within the time specified in the Compliance Action Plan, the Work Defendants shall submit an additional Compliance Action Plan instead of the Noncompliance Correction Report.

**5.6.4** In the event that major modifications to the Work systems are required during the Operation & Maintenance activities, Work Defendants shall submit a Technical Memorandum following the procedures set forth in Section 4.2.5 of this SOW for each such modification.

## **5.7 Work Completion Report**

Pursuant to Section XLIII (Termination and Satisfaction) of the Decree the Work Defendants shall submit to EPA a Work Completion Report. The Work Completion Report shall be submitted at two levels of completeness, Prefinal-90% and Final-100%. The Final Work Completion Report shall include monitoring data showing full compliance with Performance Standards at the end of the three-year Operation and Maintenance Period. The format of the Work Completion Report shall be presented in the Operations Plan and shall include at a minimum:

- A synopsis of the Work and a certification that the Work has been completed in accordance and in full compliance with this Decree.

- A summary of monitoring activities addressing compliance with Performance Standards
- A certification that the Gas Control, Cover and Surface Water Management Systems are operating in full compliance with Performance Standards pursuant to this Decree. EPA may consider factors including but not limited to those set forth in Section 5.5.6 of this SOW in making its determination of compliance with Performance Standards.
- A description of any outstanding Action Plan(s) and a schedule for its completion prior to EPA's approval of the Final Work Completion Report
- An index of all deliverables submitted pursuant to this Decree and dates of modifications to those deliverables, if any. Copies of any or all deliverables submitted pursuant to this Decree shall be provided to EPA upon request.
- A description of activities, including a schedule, necessary for transition of Operation and Maintenance activities to other person(s), if necessary.

### **5.8 Excluded Work Completion Report**

In the event that Work Defendants perform an item of Excluded Work, or portion thereof, pursuant to this Decree, the Work Defendants shall submit to EPA an Excluded Work Completion Report for each item of Excluded Work, or portion thereof, performed. The format of the Excluded Work Completion Report shall include, at a minimum, the necessary items required for the Work Completion Report.

## **6.0 DELIVERABLES AND REVIEW PROCEDURES**

### **6.1 Introduction**

This Chapter presents deliverables and review procedures for the Work. The Decree may require submission of additional deliverables not referenced herein.

### **6.2 Deliverables**

The following items are considered to be deliverables under this decree:

#### **6.2.1 Predesign Deliverables**

##### **6.2.1.1 Work Plan**

- Work Plan Outline
- Prefinal Work Plan
- Final Work Plan

##### **6.2.1.2 Safety, Health and Emergency Response Plan (SHERP)**

- SHERP Outline
- Prefinal SHERP
- Final SHERP
- Amended SHERP, if necessary

##### **6.2.1.3 Quality Assurance/Quality Control (QA/QC) Plan**

- QA/QC Plan Outline

- Prefinal QA/QC Plan
  - Final QA/QC Plan
  - Amended QA/QC Plan, if necessary
- 6.2.1.4 Predesign Report
  - Predesign Report Outline
  - Prefinal Predesign Report
  - Final Predesign Report
- 6.2.2 Design Deliverables
  - 6.2.2.1 Design
    - Preliminary-30% Design
    - Intermediate-60% Design
    - Prefinal-90% Design
    - Final-100% Design
  - 6.2.2.2 Operation Plan
    - Operation Plan Outline
    - Prefinal Operation Plan
    - Final Operation Plan
    - Revised Operation Plan
    - Second Revised Operations Plan, if necessary
- 6.2.3 Construction Deliverables
  - 6.2.3.1 Contractor Selection Notification
  - 6.2.3.2 Construction As-Built Report
    - Report Outline
    - Prefinal Report
    - Final Report
- 6.2.4 Compliance Testing Deliverables
  - 6.2.4.1 Compliance Testing Report
  - 6.2.4.2 Construction Completion Report
- 6.2.5 Operation & Maintenance Deliverables
  - 6.2.5.1 Noncompliance Notification
  - 6.2.5.2 Compliance Action Plan
  - 6.2.5.3 Compliance Correction Report
- 6.2.6 Work Completion Report
  - Prefinal-90% Work Completion Report
  - Final-100% Work Completion Report
- 6.2.7 Excluded Work Completion Report, if necessary
- 6.2.8 Technical Memoranda, if necessary

- 6.2.8.1 Minor Technical Memoranda (TM)
  - Request with Outline and 10% TM
  - Prefinal-90% Minor TM
  - Final-100% Minor TM, if necessary
- 6.2.8.2 Major Technical Memoranda (TM)
  - Request with Outline and 10% TM
  - Intermediate-60% Major TM
  - Prefinal-90% Major TM
  - Final-100% Major TM, if necessary

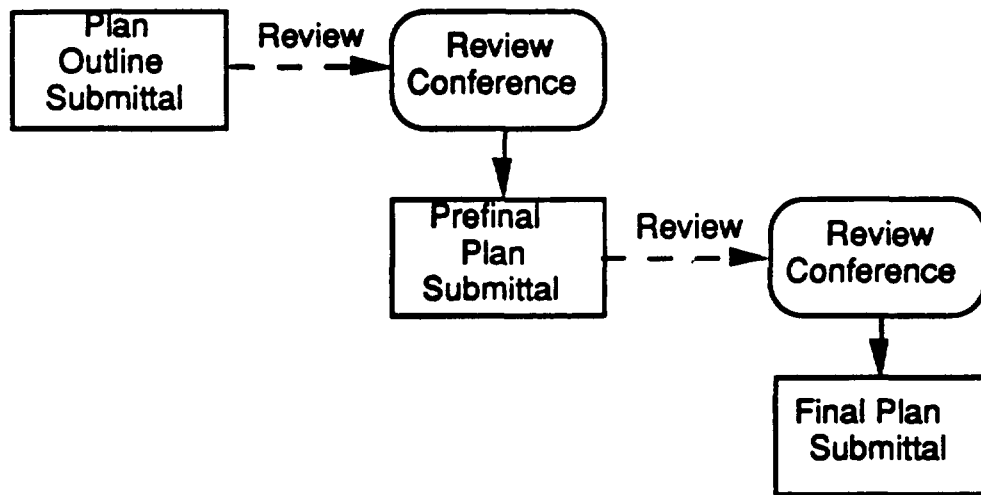
### **6.3 Review Procedures**

Review conferences are established to provide a format for presentation of EPA's review comments to the Defendants. This will facilitate the incorporation of EPA comments into the next phase of the Work submittal.

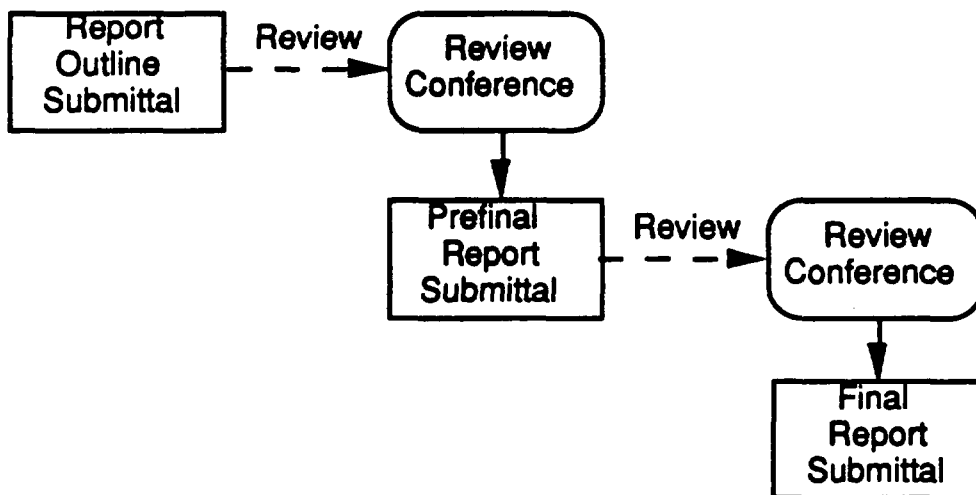
This Section describes the review procedures required for the deliverables defined in this Decree, and the procedures for the construction, inspection and startup processes. Any deliverable not identified in this Section shall undergo, at a minimum, the review procedure and schedule set forth for the Minor Technical Memorandum.



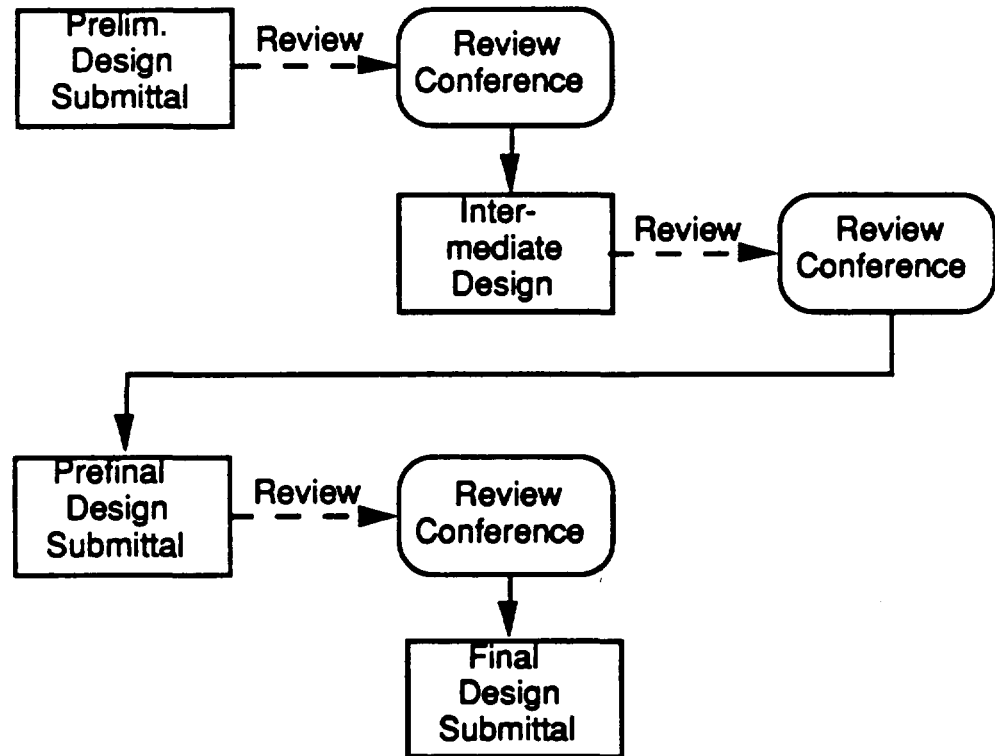
- 6.3.1 Management Plans and Minor Technical Memoranda**  
The Work Plan, SHERP, QA/QC Plan, and Operations Plan shall undergo the following review procedure below. Review Conferences for Minor Technical Memoranda shall be necessary only if requested by the Work Defendant's or EPA's Project Coordinator.



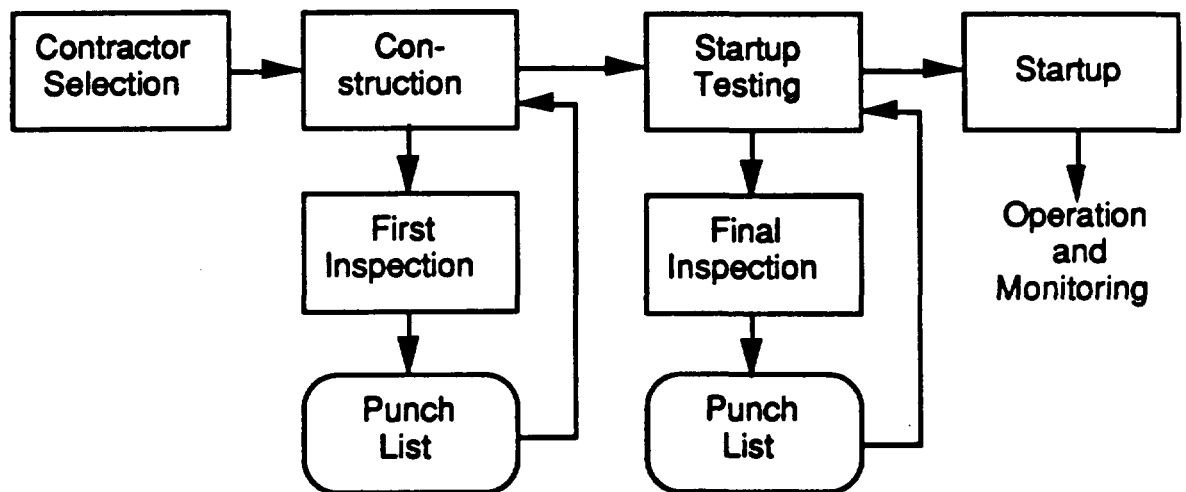
- 6.3.2 Predesign Report**  
The Predesign Report shall undergo the following review procedure:



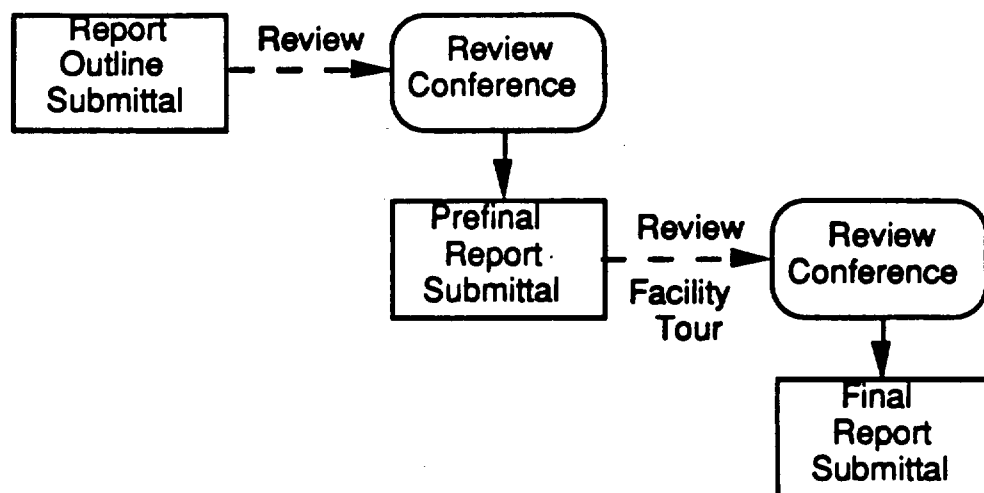
**6.3.3 Design and Major Technical Memorandum**  
The Design and Major Technical Memoranda shall undergo the following review procedure:



**6.3.4 Construction Inspection and Startup**  
Except as modified by the Final Design and Operations Plan, construction, inspection and startup procedures for the landfill gas and cover system shall undergo, at a minimum, the following process:



- 6.3.5 **Construction As-Built Report and Compliance Testing Plan**  
Except as modified by the Final Design and Operations Plan the Construction As-Built Report and Compliance Testing Plan appendix to the Operations Plan shall undergo the following review procedures:



## 7.0 SCHEDULES

### 7.1 Introduction

This chapter provides schedules for deliverables and for construction and startup procedures as discussed in Chapter 6. If EPA determines it is appropriate, the time periods set forth pursuant to this schedule may be extended without requiring a formal modification of this Decree. Requests for schedule modifications made by the Work Defendants should include a discussion of the reason for the request. Work Defendants may choose to submit deliverables prior to the scheduled deliverable date. To the extent appropriate, Work Defendants shall confirm to EPA the calendar date of subsequent deliverables.

### 7.2 Schedules for Predesign Activities

#### 7.2.1 Work Plan

Work Plan Outline	6 weeks after the effective date of this Decree
Prefinal Work Plan	8 weeks after receipt of EPA comments for the Work Plan Outline
Final Work Plan	4 weeks after receipt of EPA comments for the Prefinal Work Plan

**7.2.2 SHERP**

SHERP Outline	6 weeks after the effective date of this Decree
Prefinal SHERP	8 weeks after receipt of EPA comments for the SHERP Outline
Final SHERP	4 weeks after receipt of EPA comments for the Prefinal SHERP
Amended SHERP	With Final Design

**7.2.3 QA/QC Plan**

QA/QC Plan Outline	6 weeks after the effective date of this Decree
Prefinal QA/QC Plan	8 weeks after receipt of EPA comments for the QA/QC Plan Outline
Final QA/QC Plan	4 weeks after receipt of EPA comments for the Prefinal QA/QC Plan
Amended QA/QC Plan	With Final Design

**7.2.4 Predesign Report**

Predesign Report Outline	4 weeks after approval of the Final Work Plan
Predesign Sampling Activities	<p>Predesign Sampling Activities shall begin upon approval of the Final Work Plan, Final SHERP and Final QA/QC Plan</p> <p>The duration of Predesign Sampling Activities shall be established in the Work Plan, and shall not extend beyond 12 months after approval of Final Work Plan.</p>
Prefinal Predesign Report	<p>The Prefinal Predesign Report shall be submitted at the later of the following two times:</p> <p>(a) 10 weeks after receipt of EPA comments for the Predesign Report Outline, or</p> <p>(b) 12 weeks after completion of Predesign Sampling Activities as specified in the Final Work Plan.</p>
Final Predesign Report	4 weeks after receipt of EPA comments for the Predesign Prefinal Report.

### **7.3 Schedules for Design Activities**

#### **7.3.1 Design**

Preliminary Design	18 weeks after approval of Final Pre-design Report.
Intermediate Design	20 weeks after receipt of EPA comments for the Preliminary Design
Prefinal Design	10 weeks after receipt of EPA comments for the Intermediate Design
Final Design	4 weeks after receipt of EPA comments for the Prefinal Design

#### **7.3.2 Operations Plan**

Operations Plan Outline	20 weeks after receipt of EPA comments for the Preliminary Design
Prefinal Operations Plan	10 weeks after receipt of EPA comments for the Intermediate Design and the Operations Plan Outline
Final Operations Plan	4 weeks after receipt of EPA comments for the Prefinal Design and the Prefinal Operations Plan
Revised Operations Plan	Prior to Compliance Testing Request
Second Revised Operations Plan (if necessary)	6 weeks after approval of Construction Completion Report

### **7.4 Schedules for Construction Activities**

#### **7.4.1 Contractor Selection**

Contractor Selection and Construction Start	16 weeks after EPA approval of Final Design
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#### **7.4.2 Construction Schedule**

Construction Schedule	As established in the Final Design
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**7.4.3 System Startup**

Pre-Startup Testing	As established in the Final Design
Transition from Existing Systems to New Systems	As established in the Operations Plan.
Initial Field Monitoring	As established in the Operations Plan.

**7.4.4 Construction As-Built Report**

Construction As-Built Report and Compliance Testing Plan Outline	4 weeks after Pre-Startup Testing is initiated.
Prefinal Construction As-Built Report and Compliance Testing Plan	6 weeks after receipt of EPA comments for the Construction As-Built Report Outline
Final Construction As-Built Report and Compliance Testing Plan	2 Weeks after System Startup and prior to Compliance Testing Request
Revised Construction As-Built Report (if necessary)	6 weeks after approval of Construction Completion Report

**7.5 Schedules for Compliance Testing Activities****7.5.1 Compliance Testing Reports**

Compliance Testing Reports	6 weeks after completion of each 90-day Compliance Testing Period
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**7.5.2 Construction Completion Report**

Construction Completion Report	3 weeks after EPA notice that Compliance Testing Activities have been successfully completed
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**7.6 Schedules for Operation and Maintenance Activities****7.6.1 Noncompliance Reports**

Noncompliance Notification	within 5 days of receipt of the information indicating the noncompliance event.
Compliance Action Plan	within 15 days of receipt of the information indicating the noncompliance event
Compliance Correction Report	As established in the Compliance Action Plan

## **7.7 Schedules for Technical Memoranda**

### **7.7.1 Minor Technical Memorandum (TM)**

Outline and 10% Minor TM	With TM Request if request is from Work Defendants, or  2 weeks after EPA request
Prefinal-90% Minor TM	4 weeks after approval of Minor TM Request
Final-100% Minor TM	2 weeks after receipt of EPA comments for the Prefinal-90% Minor TM, if necessary

### **7.7.2 Major Technical Memorandum (TM)**

Outline and 10% Major TM	With TM Request if request is from Work Defendants, or  2 weeks after EPA request
Intermediate-60% Major TM	4 weeks after approval of Major TM Request
Prefinal-90% Major TM	6 weeks after receipt of EPA comments for the Intermediate Major TM
Final-100% Major TM	4 weeks after receipt of EPA comments for the Prefinal Major TM, if necessary

## **7.8 Schedule for Work Completion Report**

The Work Completion Report shall be submitted pursuant to Section XLIII (Termination and Satisfaction) of the Decree.

## **7.9 Schedule for Excluded Work Completion Report**

In the event that any item of Excluded Work, or portion thereof, is performed by the Work Defendants, the schedule for the Excluded Work Completion Report(s) shall be established by EPA in consultation with the Work Defendants .

## **Attachment-I EXISTING SYSTEM DESCRIPTIONS**

### **I-1.0 Gas Management**

Landfill gas is controlled by three active control subsystems, two active flare stations and one auxiliary flare station. The three active subsystems include: the Interior Gas Extraction System, the Perimeter Gas Extraction System and the Perimeter Air Dike System (Figures I-1, I-2 and I-3). The two active flare stations include Flare Stations No. 1 and No. 2.

#### **I-1.1 Interior Gas Extraction System**

The interior gas extraction system was installed and operated by Getty Synthetic Fuels, Inc. from 1978 to 1986. The gas system was originally designed to recover high quality gas from the center of the landfill for commercial use. The gas processing plant has been removed, and recovered landfill gas is now flared at the Interior Flare Station which is now referred to as Flare Station No. 2 (FS2). The system consists of a matrix of vertical extraction wells and horizontal surface collectors, a network of conveyance piping, and a flare station. Figure I-1 identifies the location of major system components.

- I-1.1.1 Wellfield. The interior wellfield consists of wells, surface collectors, header lines, and valve vaults.
- I-1.1.2 Wells. There are 60 wells in the interior wellfield located on the top deck of the landfill. Wells are constructed of PVC or carbon steel pipe (pile driven wells), and range in depth from 140 to 270 feet.
- I-1.1.3 Surface Collectors. Ten surface collectors also extract gas from the top deck of the landfill. Surface gas collectors consist of a low permeability membrane placed over a gravel bed and covered with a layer of soil ranging from a few inches to 20 feet in depth. A network of shallow (up to 30 feet deep) wells and horizontal high density polyethylene (HDPE) perforated pipe (trenches) conveys landfill gas from beneath each membrane to a central collector pipe.
- I-1.1.4 Conveyance Components. Wells and surface collectors are connected to subsurface HDPE header lines which carry the extracted gas to the flare station. Valves along the header line allow flow adjustment or total shut-off of various areas of the wellfield. Barometric traps at various points allow condensate to drain from the lines into the landfill. The depth of the header lines for the interior extraction system is estimated at 30 feet. Valves for the header lines are located in 6 vaults on the top deck of the landfill.

#### **I-1.2 Perimeter Gas Extraction System**

The perimeter gas extraction system was installed by Operating Industries, Inc. The perimeter system consists of the wellfield and the perimeter flare station, which is now known as Flare Station No. 1 (FS1). An Auxiliary Flare Station (AFS) is also connected to the perimeter gas extraction system. The interior and perimeter gas extraction systems were joined together by adding a bypass line from the interior collection system to FS1 in October, 1990.

- I-1.2.1 Extraction Wells. The perimeter wellfield consists of a total of 79 wells on the north, south and east slopes of the landfill. Depths range from 20 to 180



feet, with some wells penetrating through the refuse into natural geologic deposits. Wells and laterals are constructed of PVC pipe, with 2 casings installed in some wells.

- I-1.2.2 Conveyance Components. Header lines convey extracted gas to the flare station and are constructed of PVC pipe. Lines vary from 6 to 16 inches in diameter, and are generally buried no more than two feet below grade. Liquid traps at low spots along the header line allow condensate to drain from the piping into the landfill. Valves at all branches and at several intermediate points allow isolation or restriction of flow from various areas of the wellfield.

### **I-1.3 Flaring Systems**

Presently, the Oil landfill has 3 flaring systems: Flare Station No. 1 (FS1), Flare Station No. 2 (FS2) and the Auxiliary Flare Station (AFS). FS1 and FS2 previously operated independently, each for its appropriate wellfield. However, as a result of activities associated with the First Partial Consent Decree, FS1 and FS2 now operate together and can also be operated independently by valving off the bypass line. FS1, with a design maximum flow of 3,000 scfm, is the primary flare station, and FS2, with a design maximum flow of 1,500 scfm, acts as the backup flare. The AFS requires major repairs and, therefore is recommended for abandonment.

#### **I-1.3.1 Flare Station No. 1 (FS1).**

FS1, previously designated as the perimeter flare station is located on a graveled pad on native soil in the northwest portion of the site. FS1 consists of all piping, instrumentation, and equipment downstream of the flange separating the perimeter gas inlet piping from the liquid knockout drum and the bypass line.

- I-1.3.1.1 Condensate Removal. Landfill gas from both the interior and perimeter systems is flared at FS1. Condensate traveling in the gas is removed differently from each gas stream as described below.

Landfill gas from the perimeter system passes through a vertically mounted mechanical liquid knockout drum located at FS1. The liquid removed from the gas flows by gravity into an underground 500-gallon sump, and is automatically pumped from the sump to the Leachate Management System. The condensate sump pump is activated by level switches. Condensate can also be removed from the sump via a 4" standpipe next to the pump grate.

Gas from the interior system passes over two condensate drains into which liquids flow before traveling from FS2 through the bypass pipe to FS1. Liquids from the drains are transferred by pumping to a 6,000-gallon storage tank adjacent to FS2.

- I-1.3.1.2 Blowers (Compressors). After condensate removal, the gas stream enters the steel header section and passes through one or more of the three Sutobilt rotary positive displacement blowers. The blowers are driven by 100 hp, 1,800 rpm electric motors. Each of the blower units is equipped with an acoustic enclosure to reduce noise. The silencers that were previously connected to the blowers have been removed.

I-1.3.1.3 Additional Appurtenances. After passing through the blowers, gas flows through an orifice plate and flame arrestors to the flare stacks. The flow recorder operates continuously to record blower discharge.

I-1.3.1.4 Flares. FS1 contains 3 flares (9'6" o.d. x 25' high) which are designed to handle a maximum flow of 1,500 scfm each. Each flare is equipped with 2 manual louvers, 2 ultraviolet flame scanners, a stack thermocouple, a viewport and 4 sampling ports.

Propane for ignition is stored in a tank located adjacent to FS2. The propane is delivered to FS1 by a distribution manifold.

I-1.3.1.5 Instrumentation.

FS1 operates continuously as an unmanned plant. Flare shutdowns, due to safety alarm or power failures, are annunciated by lights on top of the control panel enclosure. There is also an automatic dialing system for notifying site management in the event of a shutdown.

I-1.3.2 Flare Station No. 2 (FS2). FS2, previously known as the interior flare station, is located on native soil in the northwest corner of the South Parcel. FS2 consists of all piping, instrumentation, and equipment downstream of a flange between the HDPE line from the wellfield and the 16" PVC pipe and valve connecting FS2 to the bypass line.

I-1.3.2.1 Condensate Removal. Condensate is removed from the gas stream at two drains along the 16" PVC pipe and by a vertically mounted knockout drum. Liquid is automatically pumped from the knockout vessels to a 6,000-gallon polyethylene storage tank. Operation of the condensate pumps is controlled by level switches. The storage tank is located on a soil pad encased by a concrete berm. The condensate from the storage tank is removed by vacuum truck, as needed, for delivery to the Leachate Management System.

I-1.3.2.2 Blower (Compressor). A motor-driven Roots rotary lobe blower provides working pressure (vacuum) for the wellfield. The blower, motor, and an alarm annunciator panel are mounted on a concrete pad in the northeast corner of the flare station compound. Motor controllers for the compressors are mounted on a rack next to the flare station. Start and stop buttons for the blower, blower oil pump, cooling fan, condensate pumps, and compressor annunciators and alarms are located on a control panel in the same area.

I-1.3.2.3 Additional Appurtenances. After discharge from the blower, the landfill gas passes through an orifice plate and flame arrestor before entering the flare. A 7-day paper chart flow recorder continuously traces static and differential pressure readings at the orifice plate. These readings are used to calculate volumetric flow rates.

I-1.3.2.4 ES2. The flare stack (10' o.d. x 35' high) is located in the northeast corner of the flare station compound. Five burners are located inside the unit, with a fuel gas and pilot mounted on the central burner. Propane fuel gas (stored in a tank in the southeast corner of the compound) is designed to preheat the stack before the processing of landfill gas. Two 3' x 6' air dampers located 180 degrees opposed below

the burner throat plate are automatically adjusted to maintain combustion temperature at a selected set point. Also mounted on the stack is an ultraviolet flame scanner, 2 stack thermocouples, and 3" sample ports.

The fuel gas train control panel and oxygen analyzer are mounted on a rack next to the flare stack. The panel contains control buttons and annunciators installed in a weatherproof enclosure. The fuel gas train consists of valves and piping that deliver propane to the pilot and preheat gas gun. The oxygen analyzer will shut the flare station down if the oxygen concentration reaches an upper limit of 13% by volume.

A strip chart recorder for stack temperature is located in the control panel. Stack temperature is presently kept at approximately 1600° F by setting the temperature controller which is mounted in the control panel.

I-1.3.2.5 Instrumentation. FS2 operates continuously as an unmanned plant. Station shutdown can occur from a number of faults initiated by the various system alarms. Plant shutdown events are called out by an auto-dialer machine located in the office building in the flare station compound. The auto-dialer can be programmed to call up to 9 different telephone numbers, and will repeat the call-out cycle until the alarm condition is rectified or the machine is physically turned off.

I-1.3.3 Auxiliary Flare Station (AFS). The AFS was originally intended only as a backup to FS1. The AFS would require complete replacement of flares and other equipment to actually provide a suitable backup to FS1 and FS2. It has been recommended for abandonment.

#### **I-1.4 Air Dike System**

The air dike system is located along the western and southwestern boundary of the site. The system is designed to inject air into the subsurface soil to form an air curtain in an attempt to prevent off-site subsurface migration of landfill gas. Operating Industries, Inc. installed this air dike system rather than gas extraction wells in this area due to the potential for inundation of the wells. The air dike system consists of the compressor station, and the wellfield, as presented in Figure I-3.

I-1.4.1 Compressor Station. The compressor station is located on a concrete pad in the southwest corner of the site, collocated with the AFS.

Compressed air is supplied to the air dike wells by two motor-driven compressors, which operate in parallel or individually to each leg of the air dike header. The system includes pulsation dampeners and a heat exchanger for cooling discharge air. Air flows from the cooler out to the wellfield through a 10" Schedule 40 PVC line.

The main electrical panel is located next to the compressors. Compressor and cooler control panels are next to each unit.

The compressor station operates continuously as an unmanned facility. Station shutdown or malfunction is not annunciated. There is no automated recording of operating conditions.

**I-1.4.2 Wellfield.** The 33 air dike wells or well pairs, spaced from 25' to 100' apart on center, are constructed of 2" Schedule 40 PVC pipe and are set into native soil. Wells range in depth from 15' to 158' and have perforated zones between 5' and 40'. The header lines, also constructed of PVC, are buried from 2' to 10' below grade. The air dike header lines are equipped with few valves for flow adjustment or maintenance diagnostics. Well adjustments are made by throttling valves at each injection well head, or changing size of the orifice plate used for flow measurement.

### **I-1.5 Combination Leachate/Gas Extraction Wells**

Area II of the original Leachate Collection System is located on the south side of the landfill above the City of Montebello's Iguala Park and consists of eight 36-inch diameter borings at total depths of 70' to 80', extending through approximately 10' to 15' of landfill refuse and into native earth material. An 8" well casing extends through the boring, and the annular space between the boring and the casing is filled with coarse gravel. The lower 60' of the wells consist of perforated PVC casing and gravel pack designed to directly intercept the leachate.

All of these wells are connected to the perimeter gas extraction system header line by a 1-1/2" PVC vapor collection line to extract gases from the well casing above the leachate.

## **I-2.0 Existing Cover**

The existing cover has a variable thickness from 2' or less to more than 10'. The material varies from well-graded sand with some clay and gravel to clayey silt. In 1988 and early 1989, an approximate volume of 80,000 cubic yards of low permeability soil was stockpiled on the top deck.

## **I-3.0 Stormwater/Erosion Control**

Stormwater run-off is routed via a network of V-ditches and down drains. There are four down drains which convey surface water from the landfill top deck and benches to existing storm sewer channels and natural channels off-site. The locations of these down drains are indicated in Figure I-4.

Approximately 16,500 linear feet of concrete and asphalt drainage swale (V-ditch) drains three of the terrace roadways (or benches). The ditches have experienced subsidence in some areas and require frequent maintenance to achieve adequate drainage control.

Interim drainage improvements to the top deck of the landfill include placement of additional fill to maintain critical flowlines, repair of the inlet structure to Line A, replacement of Line A, and construction of clay V-ditches. Additional interim drainage improvements are being performed pursuant to the First Partial Consent Decree.

## **I-4.0 Site Access and Security**

The following support facilities and equipment serve a site access and security function at the OII site.

### **I-4.1 Access Roads**

The site roadway system connects all portions of the site to the main entrance located on the North Parcel. Bench roads, on the slopes of the fill were constructed during the landfilling operation and are often referenced by their original MSL elevation. The Greenwood and

Westmoreland extensions derive their name from a proposed plan of the City of Monterey Park to extend the existing avenues along these routes.

All road surfaces are dirt or gravel road base except for short paved sections leading to the flare stations and a portion of the Westmoreland extension on the grade up to the top deck.

Bench roadways are narrow and require care when driving, especially under wet conditions. Many roadways may become slippery during the rainy season, although access along the roadway has been significantly improved as a result of grading and placement of road base gravel pursuant to the First Partial Consent Decree.

#### **I-4.2 Perimeter Fencing**

Fencing of varying height (approximately 6' to 8') encircles the perimeter of the site. Fencing is sufficient to preclude vehicle access and most foot traffic. However, it is mainly comprised of untopped chain link and therefore can be climbed relatively easily. Permanently locked gates exist in several places along the perimeter fence line and can be utilized if necessary to provide access to the site for foot traffic or heavy equipment. Inside the perimeter fence, fencing topped with barbed wire and/or razor ribbon surrounds the flare stations, the trailer compound, and the meteorological station.

#### **I-4.3 Main Gate Security Office**

A security office is presently located adjacent to the North Parcel field office.

#### **I-4.4 Security Lighting**

Security floodlights exist in the trailer compound, at FS1 and FS2, and at the decontamination pad.

### **I-5.0 Gas Monitoring Systems**

The gas monitoring systems consist of the following:

#### **I-5.1 Perimeter Probes**

**I-5.1.1 South Parcel Probes.** Probes were installed by OII around the perimeter of the South Parcel. These probes were intended to monitor landfill gas migration across the site boundary and were therefore placed primarily in native soil outside the refuse fill area. Probes are constructed of PVC pipe and polyethylene tubing, and are numbered 1A through 32 for a total of 55 probe locations. Many probes are screened at multiple depths, generally 5', 15', 25', 35' and 45', but some have less than five screened depths and seventeen have only a single depth. Some probes are screened in trash.

**I-5.1.2 North Parcel Probes.** Fifteen probes were installed at a single shallow depth on the North Parcel by OII. These probes were meant to indicate the presence of landfill gas in the filled area of the North Parcel, which has no gas control system. Probes are numbered N-1 through N-15. Probes N-3, -4, -12, -13 and -15 have been destroyed or lost and are no longer monitored.

### **I-5.2 Off-site Probes**

Twenty-seven multiple-depth probes were installed by order of the California Integrated Waste Management Board (CIWMB) in the residential areas south of the South Parcel. The probes are similar to the perimeter probes, have multiple depths of between 5.5' and 49', and are numbered 1 through 11A. These probes are used to monitor the migration of landfill gas into the residential neighborhoods.

### **I-5.3 Gas Monitoring Wells**

Two sets of landfill gas monitoring wells, known as GMW wells, have been installed by EPA on the North and South Parcels. The set on the South Parcel GMW contains fifteen wells with probe depths ranging from 20' to 340'. Each well contains from two to six probes at different depths. The set on the North Parcel contains thirteen of these wells with probe depths ranging from 20' to 60'.

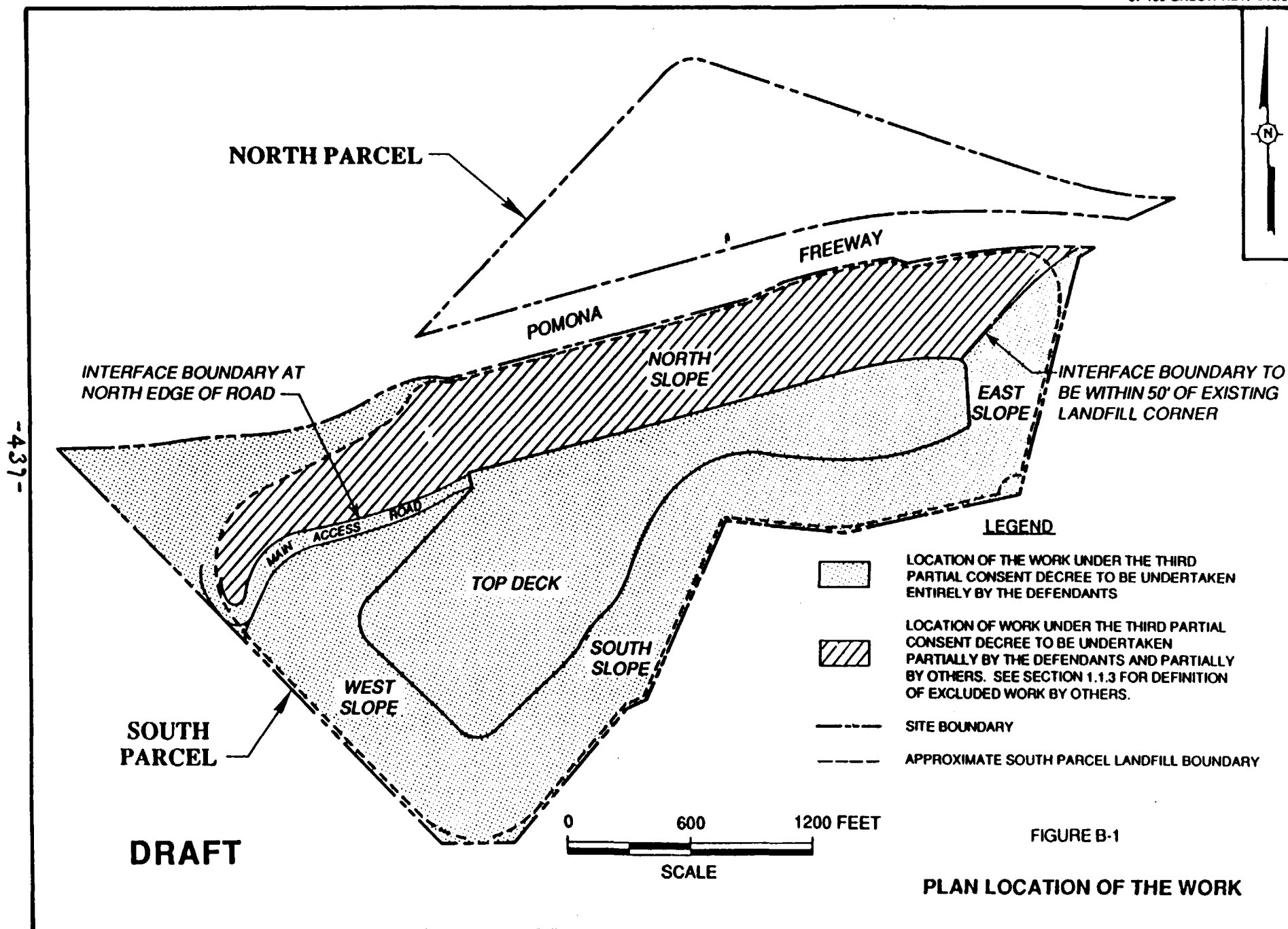
### **I-5.4 Water Meter Boxes**

Also in the neighborhoods south of the South Parcel are a number of water meter boxes that are regularly monitored. As the name implies, these are vaults, mainly in the sidewalks, that contain residential water meters. Migrating landfill gases rise through the soil floor of the vaults and are held in the box by the hinged metal cover. The atmosphere of the boxes is monitored as an indication of landfill gas migration level and extent. Due to continually elevated gas levels in certain boxes, a number of the steel lids were replaced by U.S. EPA. The new perforated lids may let the gases escape and prevent exposure to water company personnel.

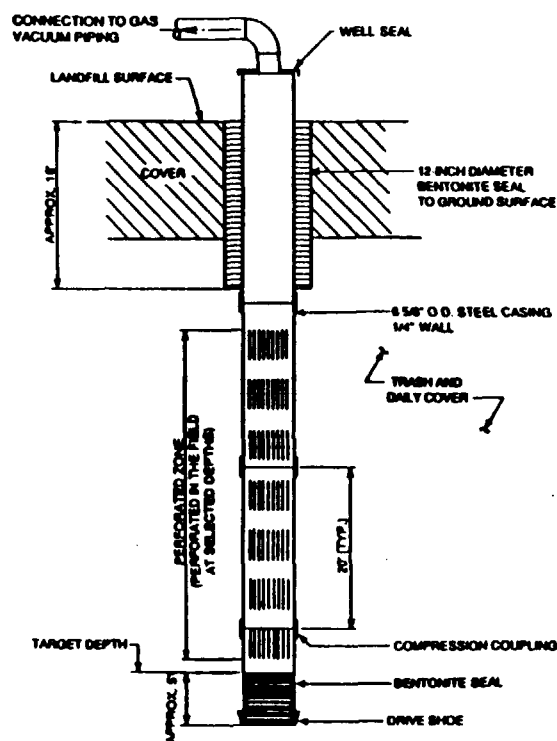
### **I-5.5 Air Dike Probes**

Air dike probes are located approximately 50' from, and between, pairs of air dike wells. Probes are of PVC construction, and sample gases from depths of 3' and 20'. There are a total of 34 probes and 41 sampling depths.

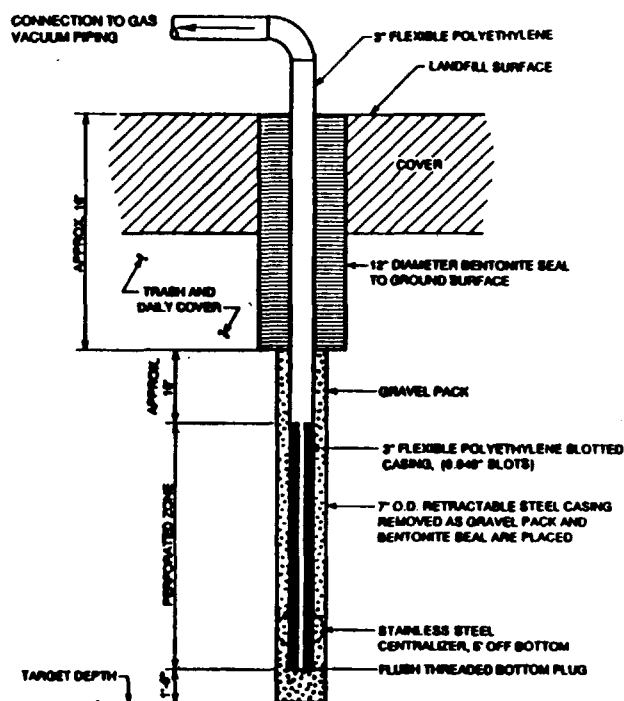
**Attachment-II FIGURES**



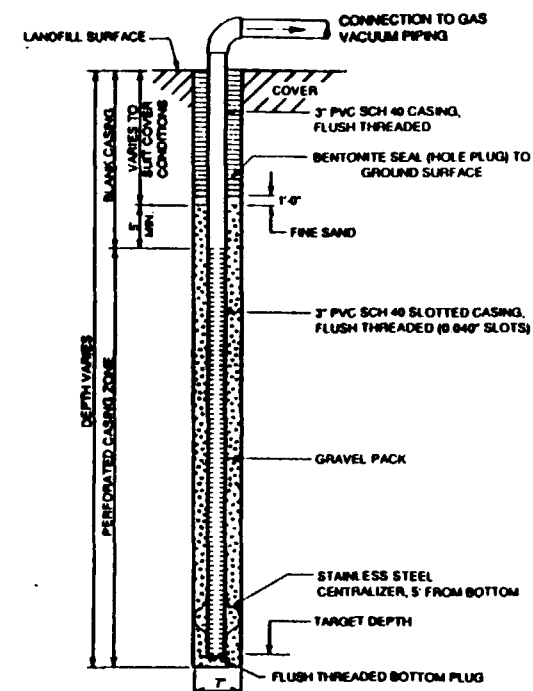




**DEEP AND INTERMEDIATE DEPTH  
DRILL/DRIVE GAS CONTROL WELLS  
UTILIZING STEEL CASING**



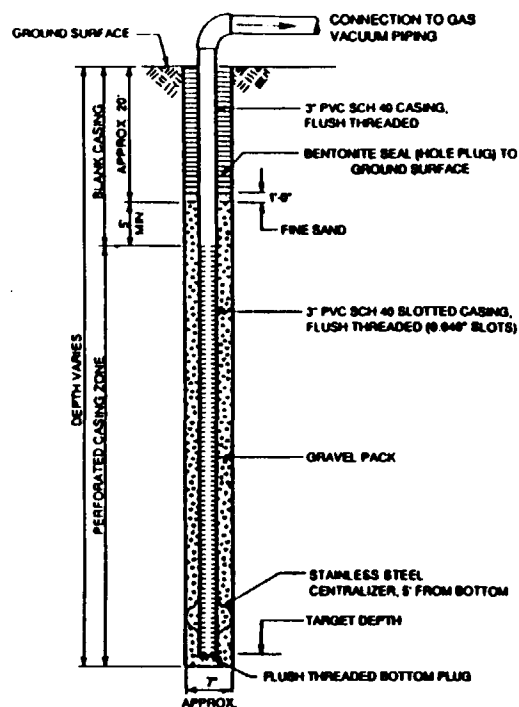
**DRILL/DRIVE GAS CONTROL  
WELL/PROBE UTILIZING FLEXIBLE  
POLYETHYLENE CASING**



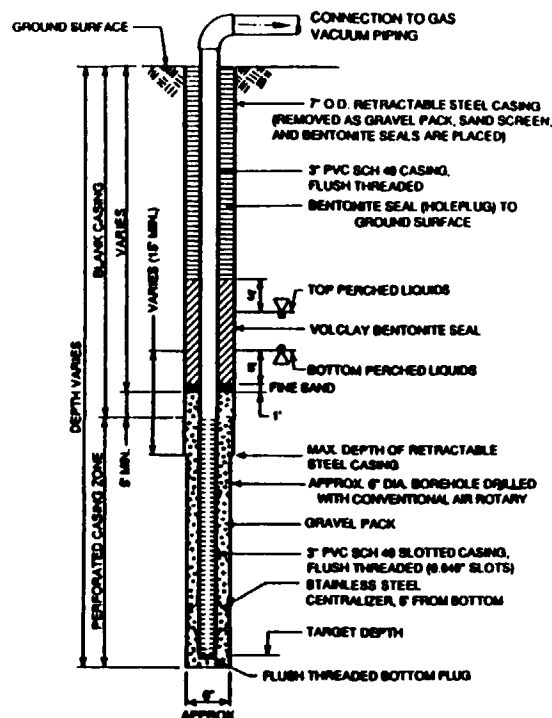
**TYPICAL SHALLOW GAS  
CONTROL WELL**

**DRAFT**

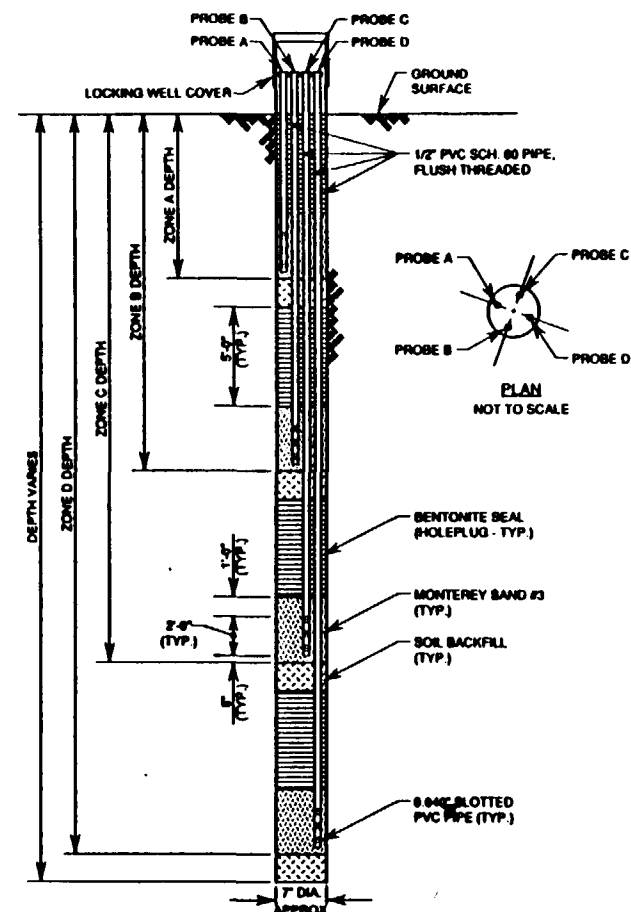
**FIGURE B-2  
CONCEPTUAL  
INTERIOR AND SLOPE WELLS  
GAS COLLECTION COMPONENT**



BOUNDARY GAS MIGRATION  
CONTROL WELL



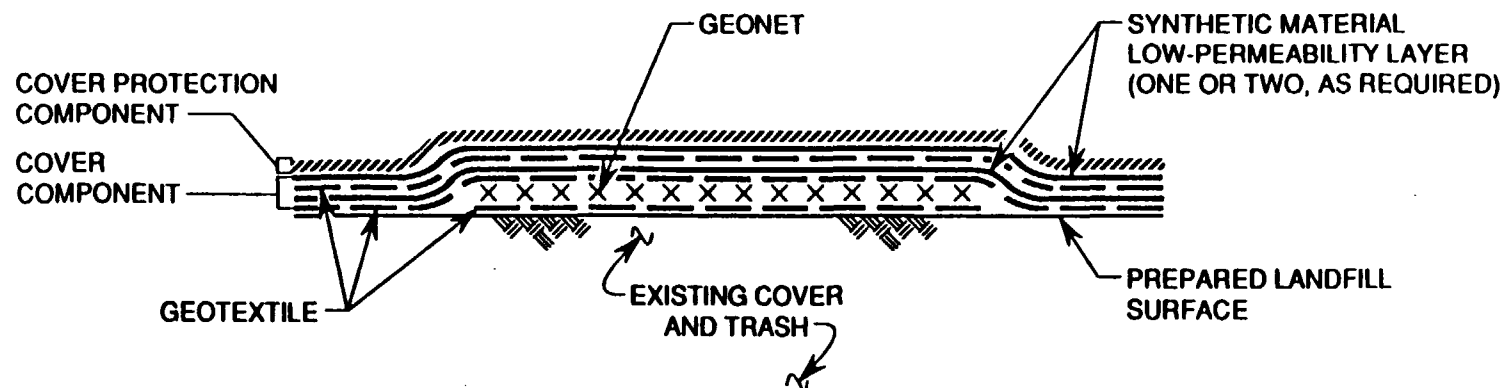
BOUNDARY GAS MIGRATION  
CONTROL WELL CONSTRUCTED  
BELOW PERCHED LIQUID



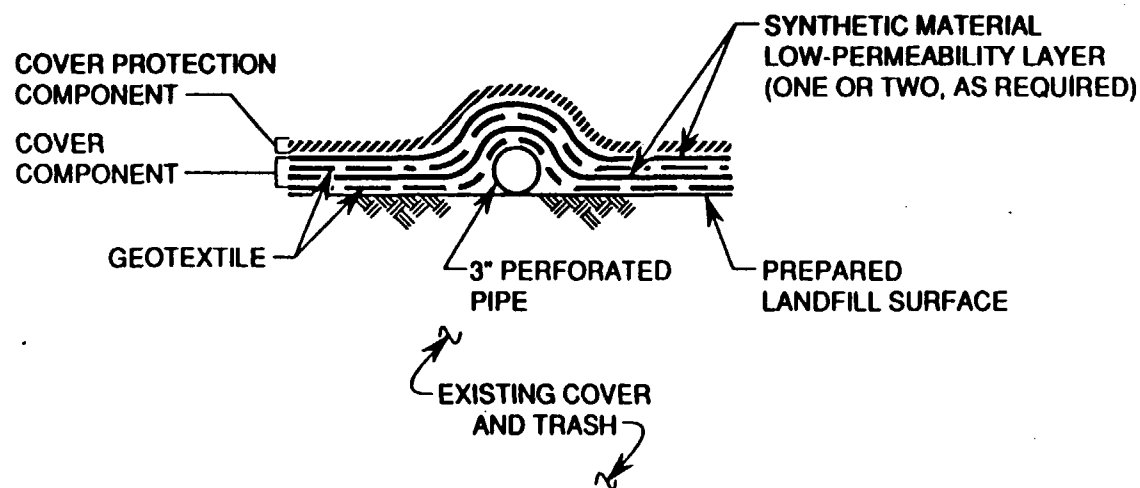
GAS MONITORING PROBE

FIGURE B-3  
CONCEPTUAL  
WELLS AND PROBES FOR  
BOUNDARY GAS COLLECTION  
COMPONENT

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**CONCEPTUAL CROSS SECTION  
GEONET COLLECTOR AND  
SYNTHETIC MATERIAL COVER SYSTEM**

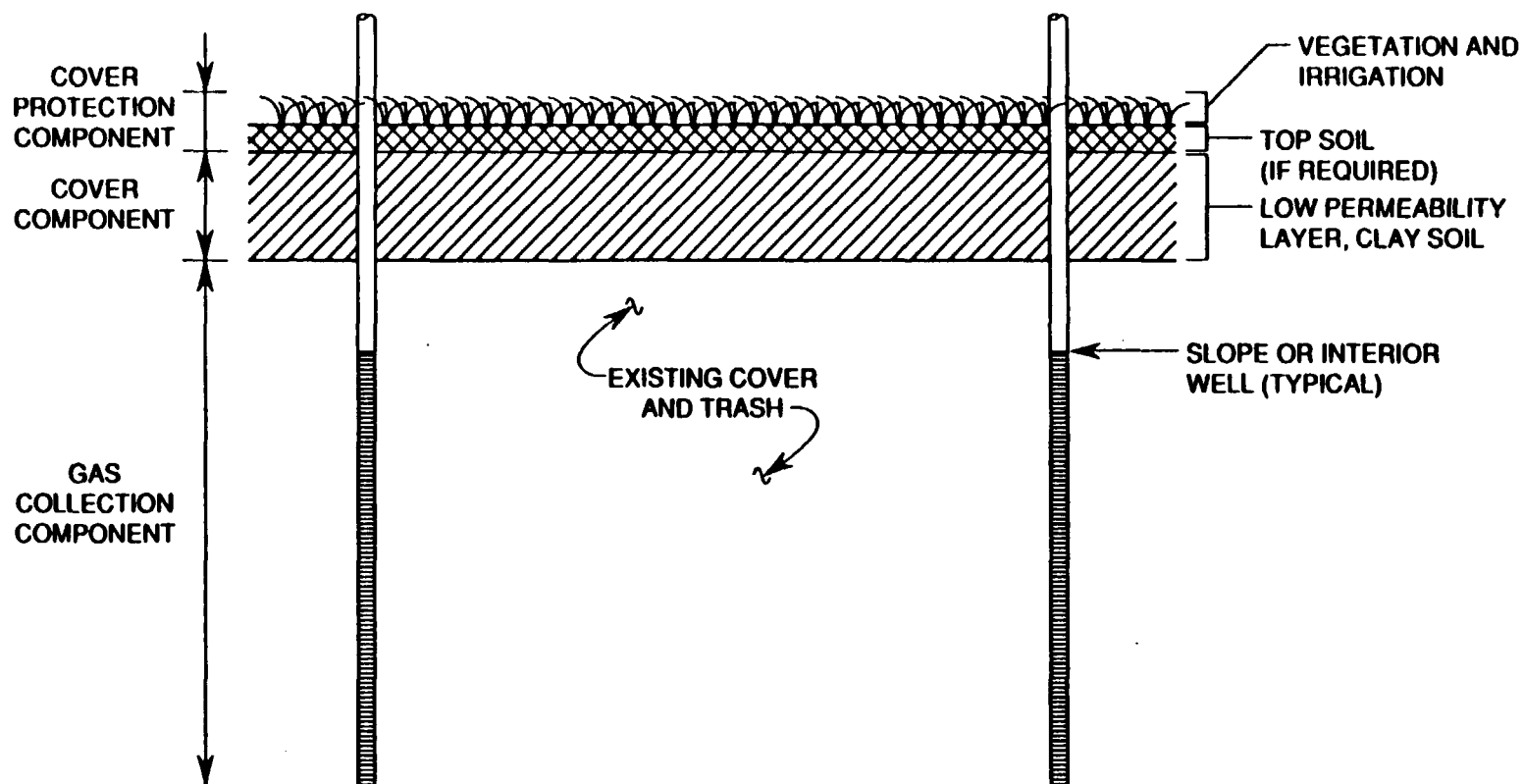


**CONCEPTUAL CROSS SECTION  
PERFORATED PIPE COLLECTOR AND  
SYNTHETIC MATERIAL COVER SYSTEM**

FIGURE B-4

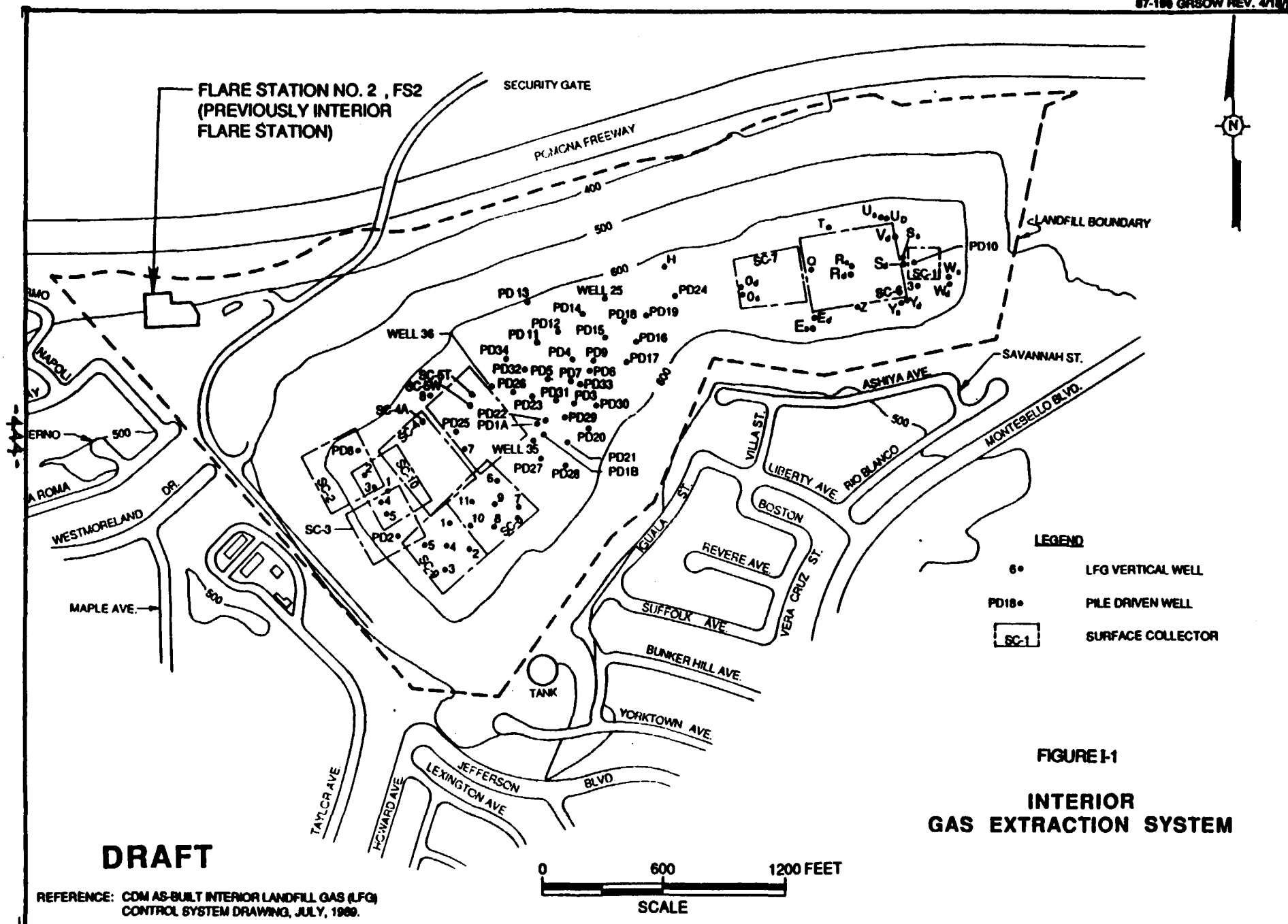
DRAFT

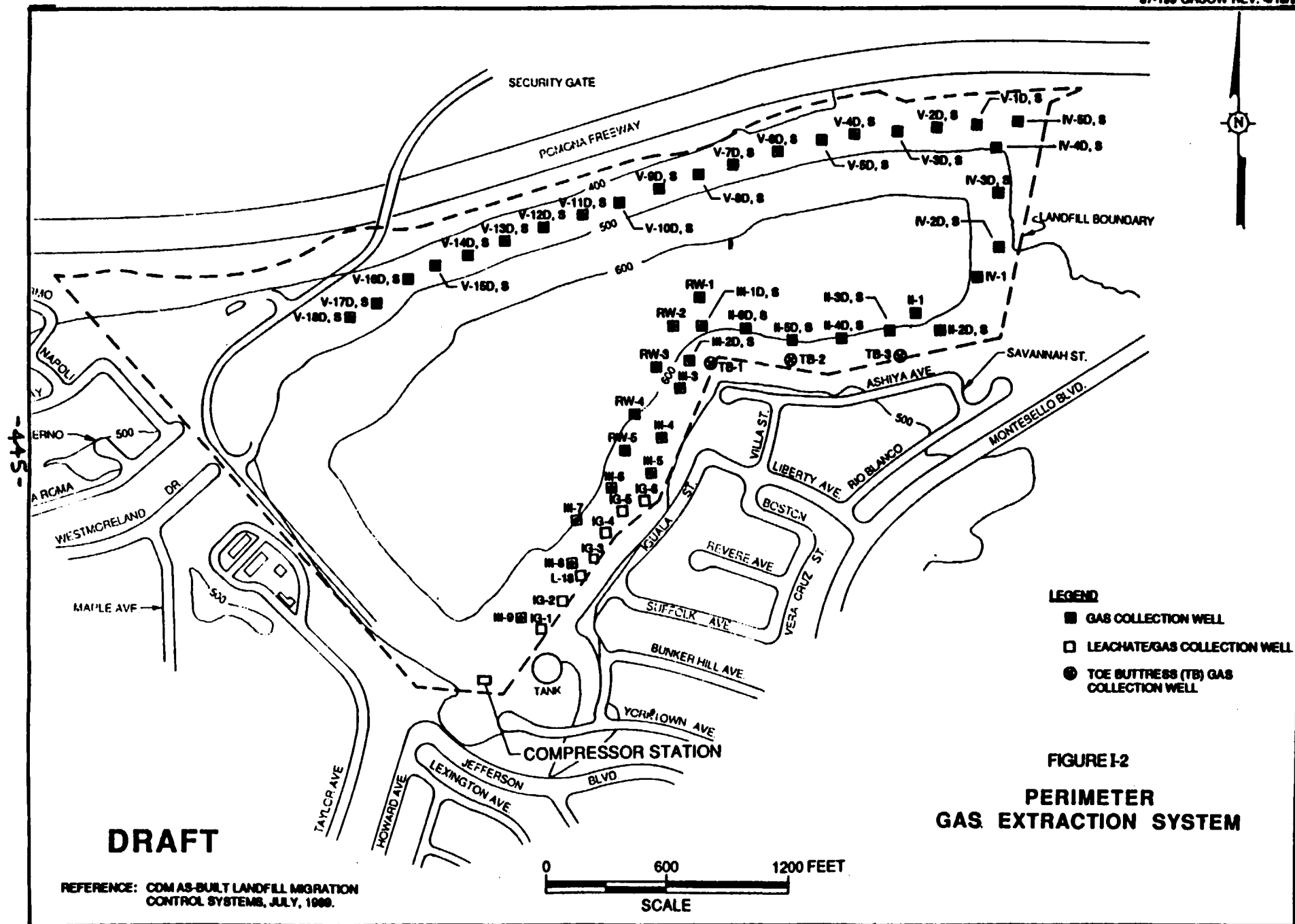
GAS SURFACE COLLECTORS,  
GAS COLLECTION COMPONENT, AND  
SYNTHETIC MATERIAL COVER SYSTEM

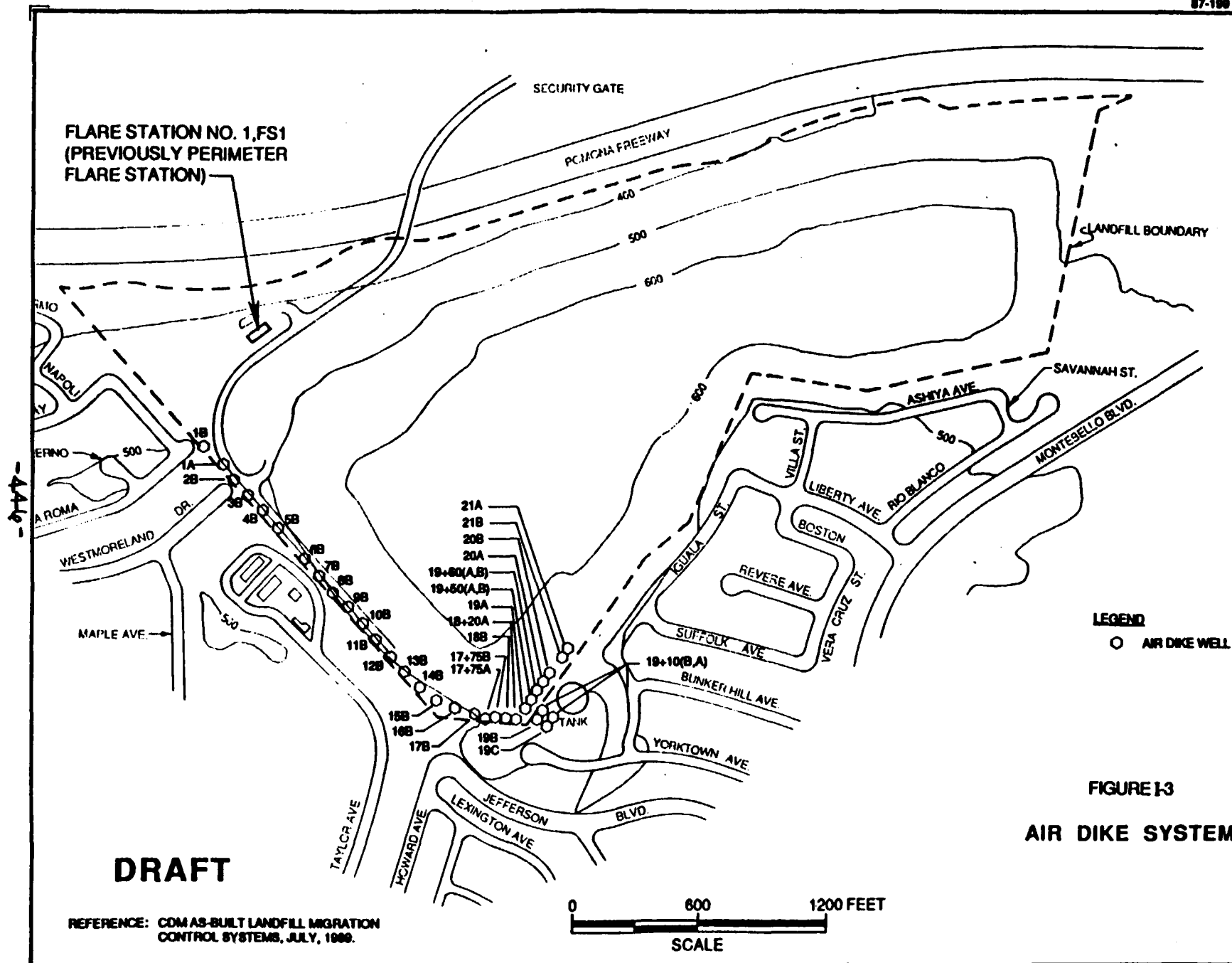


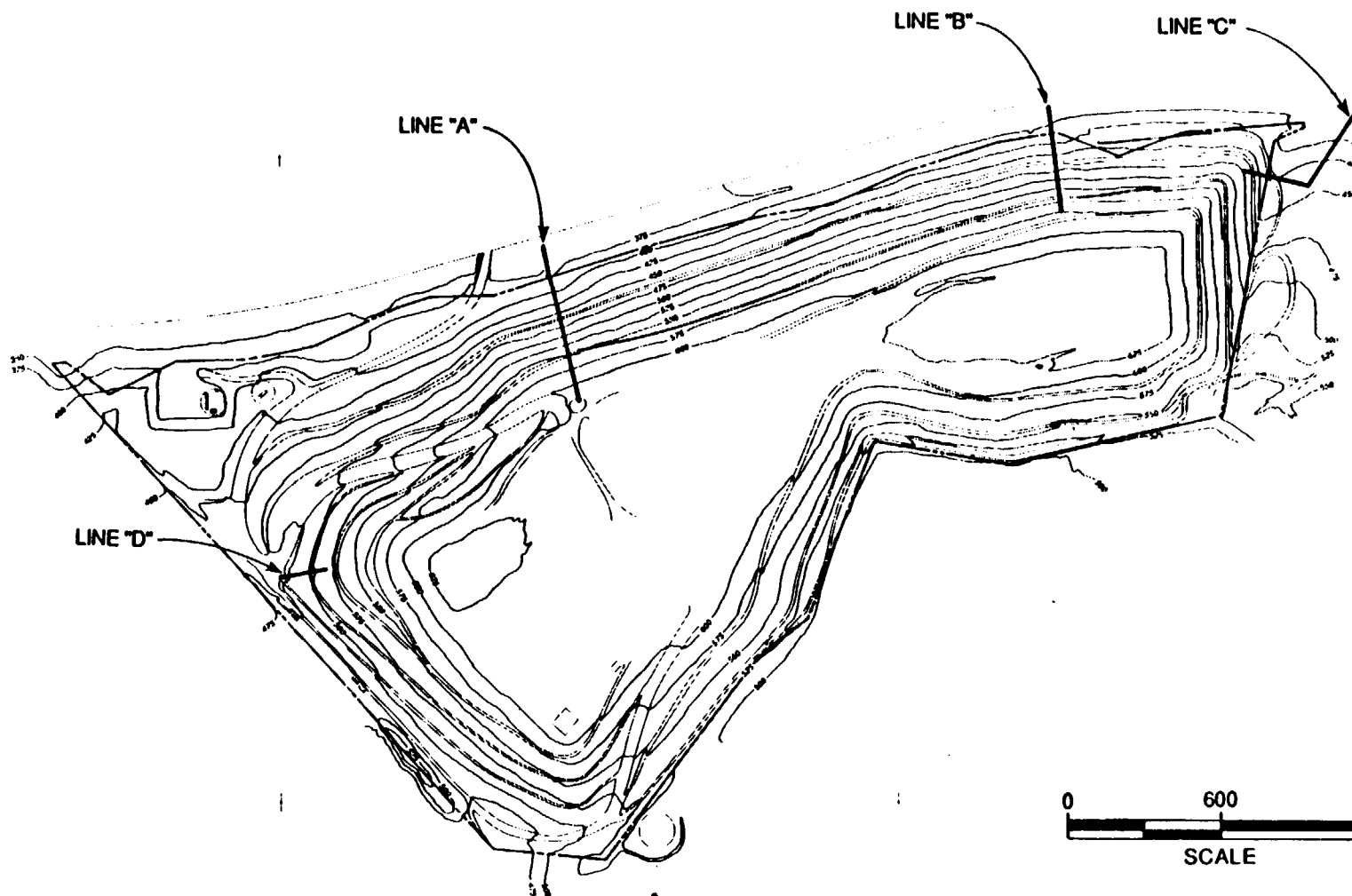
**CONCEPTUAL CROSS SECTION THROUGH  
CLAY COVER SYSTEM**

**FIGURE B-5  
TYPICAL SECTION  
CLAY COVER SYSTEM**









0 600 1200 FEET  
SCALE

FIGURE I-4

LOCATION OF STORMWATER  
RUN-OFF DOWN DRAINS

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-447-



**EXHIBIT-C**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Cash Defendants' Schedule of Payments-1**

<b>Company</b>	<b>Exhibit-E Volume</b>	<b>EPA Payment</b>	<b>Escrow Account Payment</b>	<b>State Payment</b>
1. Anchorlok Corporation for ANCHORLOK-LEAR SIEGLER CORP.	353,432	\$422,585	\$29,808	\$261
2. Aratex Services for RED STAR INDUSTRIAL SERVICE	246,390	\$294,599	\$20,780	\$182
3. B & C PLATING COMPANY	294,100	\$351,644	\$24,804	\$217
4. B.J. Services Company for B.J. SERVICE EQUIPMENT COMPANY	137,100	\$163,925	\$11,563	\$101
5. BASF Corporation for INMONT INK CORP.	115,655	\$138,284	\$9,754	\$85
6. BERWIND RAILWAY SERVICE COMPANY	235,800	\$281,937	\$19,887	\$174
7. CALMAT Company for CONROCK COMPANY	167,950	\$200,811	\$14,165	\$124
8. CLOUGHERTY PACKING COMPANY	259,300	\$310,035	\$21,869	\$191
9. COCA-COLA BOTTLING COMPANY OF LOS ANGELES	161,742	\$193,389	\$13,641	\$119
10. Coca-Cola USA for COCA-COLA COMPANY	29,780	\$35,607	\$2,512	\$22
11. CONTAINER CORPORATION OF AMERICA	385,757	\$461,235	\$32,534	\$285
12. DECALTA OIL CO.	195,636	\$233,915	\$16,500	\$144
13. Dresser Industries, Inc. for MAGCOBAR and PACIFIC PUMPS	133,910 139,969	\$160,111 \$167,356	\$11,294 \$11,805	\$99 \$103
14. Freeport-McMoRan Oil & Gas Co. a division of Freeport-McMoRan, Inc. for PETRO-LEWIS CORPORATION	184,600	\$220,719	\$15,569	\$136
15. HYDRIL COMPANY	142,810	\$170,753	\$12,044	\$105
16. INTERNATIONAL EXTRUSION CORPORATION	160,490	\$191,892	\$13,535	\$118
17. INTERNATIONAL PAPER COMPANY	286,060	\$342,031	\$24,126	\$211
18. LONGVIEW FIBRE CO.	173,475	\$207,418	\$14,630	\$128
19. LUXFER U.S.A. LIMITED	235,591	\$281,687	\$19,869	\$174
20. McAuley LCX Corp. for MCAULEY OIL CO.	229,320	\$274,189	\$19,340	\$169
21. Plywood Panels, Inc. for DAVIDSON PANEL	169,260	\$202,378	\$14,275	\$125
22. REICHOLD CHEMICALS	415,460	\$496,750	\$35,039	\$307
23. REISNER METALS, INC.	183,120	\$218,950	\$15,444	\$135
24. ROCKWELL INTERNATIONAL CORPORATION	277,303	\$331,561	\$23,387	\$205
25. ROYAL ALUMINUM	150,446	\$179,883	\$12,688	\$111
26. ROYAL INDUSTRIES	152,820	\$182,721	\$12,889	\$113

**EXHIBIT-C**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Cash Defendants' Schedule of Payments-1**

<b>Company</b>	<b>Exhibit-E Volume</b>	<b>EPA Payment</b>	<b>Escrow Account Payment</b>	<b>State Payment</b>
27. Teledyne Microelectronics, Teledyne Sprague Engineers, Teledyne Post, Teledyne Laars, Teledyne Linair, and Teledyne Cast Products for TELEDYNE	126,060	\$150,725	\$10,632	\$93
28. Tree Island Industries Ltd. for TREE ISLAND STEEL	210,335	\$251,490	\$17,739	\$155
29. UNITED AIR LINES, INC.	218,642	\$261,422	\$18,440	\$161
30. United States Brass Corporation for EASTMAN CENTRAL /U.S. BRASS	552,845	\$661,016	\$46,626	\$408
31. VOISHAN	121,210	\$144,926	\$10,223	\$89
32. WILMINGTON LIQUID BULK TERMINALS	210,470	\$251,651	\$17,751	\$155

Pursuant to paragraphs A.4 and B.3 of Section XVII (Reimbursement of Response Costs), each Cash Defendant shall make its payments in the amounts set forth above and in the following manner:

**United States' Past Response Costs**

Payments listed under "EPA Payment" shall be paid by certified check within 30 days of notice by the United States of entry of the Consent Decree to the address given in paragraph A.7 of Section XVII.

Payments listed under "Escrow Account Payment" shall be paid by certified check with 30 days of notice by the United States of entry of the Consent Decree to the address given in the notice of entry. The notice shall also specify to whom the check is to be made payable.

Copies of all checks and all transmittal letters shall be sent to EPA and the Department of Justice as provided in Section XXVII (Form of Notice).

**State's Past Response Costs**

Payments listed under "State Payment" shall be paid by certified check within 30 days of notice by the United States of entry of the Consent Decree to the address given in paragraph B.3 of Section XVII. Copies of all checks and all transmittal letters shall be sent to the State as provided in Section XXVII (Form of Notice).

**EXHIBIT-C**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Cash Defendants' Schedule of Payments-2**

Company	Payment Number	EPA Payment	Escrow Account Payment	State Payment
Capitol Metals Company, Inc.	1	\$42,380.15	\$2,989.35	\$105.00
	2	\$49,627.16	\$3,500.52	n/a
	3	\$47,211.49	\$3,330.13	n/a
	4	\$44,795.82	\$3,159.74	n/a

**United States' Past Response Costs**

The first payment listed under "EPA Payment" shall be paid by Capitol Metals by certified check within 30 days of notice by the United States of entry of the Consent Decree to the address given in paragraph A.7 of Section XVII. Payments 2, 3 and 4 shall be paid in the same manner on the anniversary of the due date for the first payment for each of the following three years.

The first payment listed under "Escrow Account Payment" shall be paid by Capitol Metals by certified check within 30 days of notice by the United States of entry of the Consent Decree to the address given in the notice of entry. The notice shall also specify to whom the check is to be made payable. Payments 2, 3 and 4 shall be paid in the same manner on the anniversary of the due date for the first payment for each of the following three years.

Copies of all checks and all transmittal letters shall be sent to EPA and the Department of Justice as provided in Section XXVII (Form of Notice).

**States' Past Response Costs**

The payment listed under "State payment shall be paid by Capitol Metals by certified check within 30 days of notice of entry to the address given in paragraph B.3 of Section XVII. Copies of all checks and all transmittal letters shall be sent to the State as provided in Section XXVII (Form of Notice).

**EXHIBIT-D**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Work Defendants**

1. Alcoa Composites, Inc.  
*for* WESLOCK CO.
2. Allied-Signal, Inc.  
*for* GARRETT AIRESEARCH  
*and* BENDIX CORP.
3. Aluminum Company of America
4. American Airlines, Inc.
5. American National Can  
*for* NATIONAL CAN
6. Amtrak-National Railroad Passenger Corporation
7. ARMCO, Inc.  
*for* ARMCO-NATIONAL SUPPLY
8. Armstrong World Industries, Inc.  
*for* ARMSTRONG CORK CO.
9. Atlantic Richfield Company  
*for* ARCO / ANACONDA AMERICAN BRASS DIV.
10. Atochem North America, Inc.  
*for* RUREX CORPORATION
11. Behr Process Corporation
12. Bethlehem Steel Corporation
13. Betz Laboratories, Inc.
14. Bird Corporation  
*for* BIRD AND SON INC.
15. Black & Decker Corporation  
*for* MCCULLOCH CORPORATION
16. Blacktop Materials Company
17. Borden, Inc.  
*for* BORDEN CHEMICAL COMPANY
18. Borg-Warner Corporation  
*for* BYRON JACKSON PUMP DIVISION
19. Bridgestone/Firestone, Inc.  
*for* FIRESTONE TIRE AND RUBBER COMPANY
20. Calgon Corporation
21. Carnation Company
22. Champion International Corporation  
*for* ST. REGIS PAPER CO.
23. Chevron Chemical Company, Chevron Pipeline Company,  
and Chevron USA, Inc.  
*for* CHEVRON U.S.A. / GULF OIL CO.
24. Chrome Crankshaft Company, Inc.
25. Chrysler Corporation  
*for* NU CAR PREP
26. Conoco, Inc.  
*for* CONOCO, INC. / DOUGLAS OIL CO.

**EXHIBIT-D**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Work Defendants**

27. Conopco, Inc.  
*for* LEVER BROTHERS
28. Cooper & Brain, Inc.  
*for* COOPER AND BRAIN OIL CO.
29. Cooper Drum Company  
*for* SUPERIOR DRUM CO.
30. Crowley Maritime Corporation on behalf of its wholly owned subsidiaries Crowley Towing and Transportation Co. and Crowley Environmental Services
31. Crown Beverage Packaging, Inc.  
*for* CONTINENTAL CAN CO.
32. Deft, Inc.
33. Delta Air Lines, Inc.  
*for* WESTERN AIRLINES
34. Department of Water and Power of the City of Los Angeles
35. Deutsch Company
36. Douglas Oil Company  
*for* CONOCO, INC./DOUGLAS OIL CO.
37. Dunn-Edwards Corporation
38. E.B. King  
*for* Southern California Chemical Company, Inc.
39. Emerson & Cuming, Inc.
40. Exxon Corporation  
*for* EXXON U.S.A.
41. Federal Express Corporation  
*for* FLYING TIGERS, INC.
42. Ferro Corporation  
*for* PRODUCTOL CHEMICAL CO.
43. Fibreboard Corporation
44. Flint Ink Corporation
45. The Flintkote Company  
*for* PIONEER-FLINTKOTE
46. Ford Motor Company
47. GATX Terminals Corporation  
*for* GATX CORPORATION
48. Gaylord Container Corporation, successor in interest for Baldwin Park Boulevard plant,  
*for* CROWN ZELLERBACH
49. General Electric Company
50. General Latex and Chemical Corporation
51. General Motors Corporation
52. Georgia-Pacific Corporation
53. Gould, Inc.

**EXHIBIT-D**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Work Defendants**

- 54. Grant Oil Tool Company, (A MASCO Industries Co., d/b/a Masx Energy Services Group, Inc.)  
for GRANT OIL TOOL
- 55. Grow Group, Inc.  
for AMERITONE PAINT CORP. / TREWAX CO.
- 56. H & L Tooth Company  
for PRECISION HEAT TREATING COMPANY  
and HI-PRODUCTION FORGE
- 57. Hellman Properties  
for HELLMAN ESTATES OIL CO.
- 58. Henkel Corporation (on behalf of Emery Industries)  
for EMERY CHEMICALS
- 59. The Hertz Corporation
- 60. Hollytex Carpet Mills/USG Corporation
- 61. Hughes Aircraft Company
- 62. Hunt Wesson, Inc.  
for HUNT-WESSON FOODS, INC.
- 63. Ingersoll-Rand Company (Proto Tool)  
for PROTO TOOL COMPANY
- 64. Inland Container Corporation
- 65. The City of Inglewood
- 66. Interstate Brands Corporation  
for INTERSTATE BRANDS BAKERY
- 67. James River II, Inc., successor in interest with respect to Sheila Street and Garfield Avenue plants  
for CROWN ZELLERBACH
- 68. Kenosha Auto Transport Corporation
- 69. Kern Foods, Inc. Shareholders' Liquidating Trust  
for KERN FOODS INC.
- 70. Keysor Century Corporation
- 71. Latchford Glass Company
- 72. Liberty Vegetable Oil Company
- 73. Lockheed Corporation and Lockheed Aeronautical System Company Division  
for LOCKHEED AIRCRAFT
- 74. Long Beach Oil Development Company
- 75. Long Beach Unit, Wilmington Oil Field, California (City of Long Beach,  
Unit Operator: Thums Long Beach Company, Agent for Field Contractor)  
for THUMS LONG BEACH
- 76. The City of Los Angeles  
for LOS ANGELES, CITY OF
- 77. Martin Marietta Corporation, on behalf of Commonwealth Aluminum Corporation  
for MARTIN MARIETTA ALUMINUM
- 78. Master Processing Corporation

**EXHIBIT-D**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Work Defendants**

- 79. Maytag Corporation  
*for* GAFFERS AND SATTLER
- 80. McDonnell Douglas Corporation  
*for* MCDONNELL DOUGLAS AIRCRAFT
- 81. McKesson Water Products Company  
*for* SPARKLETTS DRINKING WATER CORP.
- 82. Menasco Aerosystems Division, California Operation Division  
of Coltec Industries, Inc.  
*for* MENASCO INC.
- 83. Mitchell Energy Corporation
- 84. Mobil Oil Corporation  
*for* MOBIL OIL CO. / SUPERIOR OIL CO.
- 85. Mydrin Inc.  
*for* R & D LATEX
- 86. NI Industries, Inc., a MASCO Industries Subsidiary,  
*for* NORRIS INDUSTRIES
- 87. NL Industries, Inc.  
*for* NL METALS
- 88. Norris Industries, Inc., Weiser Lock Division  
*for* WEISER LOCK COMPANY
- 89. Occidental Petroleum Corporation
- 90. Oil and Solvent Process Co., a subsidiary of Chemical Waste Management, Inc.,  
*for* OIL AND SOLVENT PROCESS COMPANY
- 91. Oryx Energy Company  
*for* SUN OIL CO.
- 92. Owens-Illinois, Inc.
- 93. Pacific Tube Company
- 94. Packaging Corporation of America/EKCO Products  
*for* EKCO PRODUCTS, INC.
- 95. Parker Hannifin Corporation
- 96. Pervo Paint Company
- 97. PPG Industries, Inc.
- 98. Primerica Holdings, Inc.  
*for* AMERICAN CAN COMPANY, INC.
- 99. The Proctor and Gamble Manufacturing Company
- 100. ProMark Group West  
*for* MAJOR BRAND PAINT AND VARNISH CO.
- 101. Prudential Overall Supply
- 102. Renta Uniform
- 103. Reynolds Metals Company
- 104. RLL Corporation  
*for* MAX FACTOR COMPANY

**EXHIBIT-D**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Work Defendants**

- 105. Safeway, Inc.  
    *for* SAFEWAY STORES, INC.
- 106. Santa Fe Energy / C.W.O.D.
- 107. Senior Engineering Company  
    *for* SOUTHWESTERN ENGINEERING COMPANY
- 108. Shasta Beverages, Inc.
- 109. Shell Oil Company
- 110. Soulé-Arnon Liquidating Agency  
    *for* SOULE STEEL
- 111. Southern California Edison Company
- 112. Southern California Gas Company
- 113. Southern California Rapid Transit District
- 114. Southern Pacific Transportation Company
- 115. Southwest Forest Industries, Inc.
- 116. Starkist Foods, Inc.
- 117. The Stroh Brewery Company  
    *for* SCHLITZ (JOSEPH) BREWING CO.
- 118. Superior Industries International, Inc.
- 119. Supracote, Inc.
- 120. Surface Protection Industries, Inc.  
    *for* ZOLATONE PROCESS INCORPORATED
- 121. Texaco, Inc.  
    *for* TEXACO INC. / GETTY OIL
- 122. The Times Mirror Company, Los Angeles Times Division and Times Mirror Press  
    *for* Los Angeles Times/Mirror Press
- 123. Transportation Leasing Company  
    *for* GREYHOUND LINES
- 124. TRW, Inc.  
    *for* TRW CINCH GRAPHIK
- 125. "21" International Holdings, Inc.  
    *for* GENERAL FELT INDUSTRIES, INC.
- 126. Union Oil Company of California
- 127. Union Pacific Resources Company  
    *for* CHAMPLIN PETROLEUM CO.
- 128. The Uniroyal Goodrich Tire Company  
    *for* UNIROYAL INC.
- 129. United Parcel Service, Inc.
- 130. United States Gypsum Company
- 131. Van Waters & Rogers, Inc.
- 132. Vest, Inc.  
    *for* BERNARD EPPS AND COMPANY
- 133. Waterford Wedgwood USA Inc.  
    *for* FRANCISCAN CERAMICS



**EXHIBIT-D**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Work Defendants**

- 134. Welches Overall Cleaning Company, Inc.  
for WELCH'S INDUSTRIAL UNIFORM
- 135. Western Chemical
- 136. Westinghouse Electric Corporation  
for SEVEN-UP BOTTLING CO. OF LA.
- 137. Willamette Industries, Inc.  
for WESTERN KRAFT CORPORATION
- 138. Xerox Corporation

**United States' Past Response Costs**

Pursuant to paragraphs A.5 of Section XVII (Reimbursement of Response Costs), Work Defendants shall pay by certified check into the EPA Hazardous Substance Superfund their portion of the United States' past costs. The dollar figure owing shall be set forth in the notice by the United States of entry of the Consent Decree. Notice of the amount shall be given to Work Defendants as provided in Section XXVII (Form of Notice). Copies of all checks and all transmittal letters shall be sent to EPA and the Department of Justice as provided in Section XXVII.

**States' Past Response Costs**

Pursuant to paragraph B.3 of Section XVII (Reimbursement of Response Costs), Work Defendants shall pay by certified check the amount of \$117,814.00 within 30 days of notice by the United States of entry of the Consent Decree. The check shall be sent to the address set forth in paragraph B.3 of Section XVII. Copies of all checks and all transmittal letters shall be sent to the State as provided in Section XXVII (Form of Notice).

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
**Third Partial Consent Decree**  
**1991**

				Total Volume Converted to Gallons
Company	Gallons	Tons	Other	
1. CHEVRON U.S.A. / GULF OIL CO.	14,305,634	5,219	43,824	15,658,187
2. TEXACO INC. / GETTY OIL	10,328,495	741	21,249	10,535,373
3. ARCO / ANACONDA AMERICAN BRASS DIV.	9,761,043	11	6,700	9,770,494
4. NATIONAL CAN	9,144,093	0	5,967	9,150,060
5. EXXON U.S.A.	8,055,294	0	3,125	8,058,419
6. MCDONNELL DOUGLAS AIRCRAFT	7,221,689	0	19,685	7,241,374
7. UNION OIL CO.	7,054,399	0	17,994	7,072,393
8. NORRIS INDUSTRIES	5,568,740	3,000	104,056	6,436,746
9. SHELL OIL CO.	5,787,482	0	5,250	5,792,732
10. SUN OIL CO.	5,362,980	0	7,200	5,370,180
11. OCCIDENTAL PETROLEUM CO.	4,672,180	0	500	4,672,680
12. MOBIL OIL CO. / SUPERIOR OIL CO.	4,656,693	12	9,588	4,669,287
13. POWERINE OIL CO.	4,151,640	0	23,092	4,174,732
14. SOUTHERN CALIFORNIA GAS CO.	3,730,414	100	5,200	3,760,648
15. CONTINENTAL CAN CO.	3,698,565	0	6,530	3,705,095
16. SANTA FE ENERGY / C.W.O.D.	3,504,671	0	19,501	3,524,172
17. HARSHAW/FILTROL CORPORATION	3,466,100	0	3,550	3,469,650
18. MARTIN MARIETTA ALUMINUM	3,211,210	0	10,805	3,222,015
19. DEL AMO ENERGY	3,084,480	0	6,800	3,091,280
20. CHAMPLIN PETROLEUM CO.	2,844,150	0	1,900	2,846,050
21. CONOCO, INC. / DOUGLAS OIL CO.	2,843,064	0	2,120	2,845,184
22. SOULE STEEL	2,548,199	0	6,078	2,554,277
23. ASBURY OIL CO.	2,186,110	0	1,270	2,187,380
24. GENERAL MOTORS CORP.	1,795,757	491	68,670	1,991,850
25. KAY-BRUNNER STEEL	1,962,010	0	500	1,962,510
26. IT CORPORATION	1,853,586	0	623	1,854,209
27. ROUTH TRANSPORTATION	1,834,980	0	350	1,835,330
28. LOCKHEED AIRCRAFT	1,714,770	0	8,326	1,723,096
29. LONG BEACH OIL DEVELOPMENT	1,488,160	0	5,192	1,493,352
30. BETHLEHEM STEEL CORP.	1,420,205	0	11,130	1,431,335
31. RACHELLE LABS	1,299,570	0	5,300	1,304,870
32. INTERPACE CORP.	1,157,246	0	26,345	1,183,591
33. BEVERLY HILLS OIL ASSOCIATION	1,174,320	0	2,130	1,176,450
34. ALUMINUM COMPANY OF AMERICA (ALCOA)	1,128,345	0	1,470	1,129,815
35. SOUTHERN CALIFORNIA RTD	895,690	0	110,335	1,006,025
36. AMERICAN PACIFIC INTERNATIONAL	956,716	0	500	957,216
37. KEYSOR CENTURY CORP.	946,155	0	800	946,955
38. SCHLITZ (JOSEPH) BREWING CO.	935,025	0	10,000	945,025
39. SINCLAIR PAINTS	932,900	0	1,000	933,900
40. GARRETT AIRESEARCH	874,204	0	550	874,754
41. UNIROYAL INC.	846,850	0	12,600	859,450
42. AMERICAN AIRLINES	806,890	0	29,071	835,961
43. LEACH OIL CO.	779,940	0	500	780,440

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
**Third Partial Consent Decree**  
**1991**

1991				Total Volume Converted to Gallons
Company	Gallons	Tons	Other	
44. BETZ LABS, INC.	747,191	0	5,800	752,991
45. LOS ANGELES DEPT. OF WATER & POWER	738,390	36	100	747,491
46. EMERY CHEMICALS	716,210	0	4,775	720,985
47. KERN FOODS INC.	714,966	0	440	715,406
48. TEXTILE RUBBER & CHEMICAL CO.	709,040	0	170	709,210
49. SOUTHERN CALIFORNIA EDISON CO.	706,260	4	305	707,565
50. MITCHELL ENERGY CORP.	669,210	0	100	669,310
51. SOUTHWEST PROCESSORS INC. / AMEROIL	667,380	0	0	667,380
52. REYNOLDS METALS	658,290	20	565	663,859
53. LONG BEACH NAVAL SHIPYARD	634,440	0	600	635,040
54. STEEL CASTINGS	626,830	0	480	627,310
55. CALGON CORP.	612,360	0	0	612,360
56. MARINA PACIFICA	605,094	0	100	605,194
57. PPG INDUSTRIES, INC.	601,080	0	0	601,080
58. EDGINGTON OIL CO.	589,680	0	300	589,980
59. BYRON JACKSON PUMP DIVISION	588,496	0	370	588,866
60. PARKER HANNIFIN	585,282	0	2,650	587,932
61. HERBELL OIL CO.	582,750	0	100	582,850
62. SOUTHERN CALIFORNIA CHEMICAL	514,700	0	62,000	576,700
63. LIBERTY VEGETABLE OIL CO.	555,886	0	45	555,931
64. EASTMAN CENTRAL / U.S. BRASS	552,780	0	65	552,845
65. PROTO TOOL COMPANY	549,150	0	309	549,459
66. METLOX POTTERIES	528,066	0	0	528,066
67. THUMS LONG BEACH	485,520	120	100	515,626
68. MARTIN OIL SERVICE CO.	506,100	0	0	506,100
69. AMERITONE PAINT CORP. / TREWAX CO.	499,928	0	410	500,338
70. CALIFORNIA MILK PRODUCERS	476,566	0	17,195	493,761
71. CAPRI TREATMENT PLANT	478,840	0	12,050	490,890
72. VERNON TRUCK WASH	487,830	0	1,125	488,955
73. XEROX CORPORATION	479,640	0	1,000	480,640
74. MENASCO INC.	472,600	0	7,600	480,200
75. XTRA ENERGY	467,700	0	0	467,700
76. LADISH PACIFIC DIVISION	456,682	0	125	456,807
77. ALEX FOODS, INC.	447,305	0	925	448,230
78. TRW CINCH GRAPHIK	442,366	0	500	442,866
79. REICHOLD CHEMICALS	415,410	0	50	415,460
80. HOLLYTEX CARPET MILLS	402,318	0	220	402,538
81. CROWLEY MARITIME CORPORATION	390,120	0	4,550	394,670
82. HUTCHISON (WM. H.) & SONS SERVICE	388,710	0	0	388,710
83. MACMILLAN RING-FREE OIL CO.	386,556	0	200	386,756
84. CONTAINER CORPORATION OF AMERICA	384,792	0	965	385,757
85. BAXTER, J.H.	382,200	0	0	382,200
86. SOUTHERN PACIFIC TRANSPORTATION CO.	372,399	0	5,220	377,619

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
**Third Partial Consent Decree**  
**1991**

				Total Volume Converted to Gallons
Company	Gallons	Tons	Other	
87. NL METALS	376,110	0	160	376,270
88. SOUTHWESTERN ENGINEERING COMPANY	374,620	0	320	374,940
89. MAJOR BRAND PAINT AND VARNISH CO.	374,770	0	0	374,770
90. ANCHORLOK -LEAR SIEGLER CORPORATION	353,372	0	60	353,432
91. SUPERIOR DRUM CO.	346,520	0	4,700	351,220
92. S. ROSE COOPERAGE	341,500	0	1,300	342,800
93. HUGHES AIRCRAFT	328,725	0	4,875	333,600
94. MYERS DRUM CO.	304,160	76	4,401	327,834
95. CAMAY DRILLING	326,340	0	1,200	327,540
96. SUPERIOR INDUSTRIES	324,354	0	125	324,479
97. FLINT INK CORPORATION	322,875	0	0	322,875
98. ACT CONTAINER COMPANY	319,620	0	201	319,821
99. LOS ANGELES TIMES-MIRROR PRESS	316,790	0	1,825	318,615
100. HUNT-WESSON FOODS, INC.	316,680	0	100	316,780
101. FRANCISCAN	298,996	0	16,045	315,041
102. UNION CARBIDE CORPORATION	267,760	0	44,100	311,860
103. SEABOARD OIL AND GAS COMPANY	311,010	0	270	311,280
104. FLETCHER OIL AND REFINING COMPANY	306,600	0	0	306,600
105. WESTERN AIRLINES	289,960	0	12,930	302,890
106. CROSBY AND OVERTON, INC.	300,720	0	100	300,820
107. EMERSON AND CUMING, INC.	294,630	0	40	294,670
108. B & C PLATING COMPANY	294,000	0	100	294,100
109. INTERNATIONAL PAPER CO.	285,400	0	660	286,060
110. UNION PACIFIC RAILROAD COMPANY	278,460	0	500	278,960
111. ROCKWELL INTERNATIONAL	277,188	0	115	277,303
112. PROCTOR AND GAMBLE COMPANY	268,460	0	5,600	274,060
113. GAFFERS AND SATTler	271,030	0	220	271,250
114. FIRESTONE TIRE AND RUBBER COMPANY	266,360	0	4,700	271,060
115. KELLOGG AND SONS	264,600	0	2,610	267,210
116. CARNATION COMPANY	260,970	0	5,075	266,045
117. MECHANICAL METAL FINISHING COMPANY	265,220	0	585	265,805
118. WELCH'S INDUSTRIAL UNIFORM	260,390	0	4,000	264,390
119. DUNN-EDWARDS CORPORATION	257,111	0	4,670	261,781
120. GREYHOUND LINES	261,060	0	50	261,110
121. CLOUGHERTY PACKING	258,930	0	370	259,300
122. GENERAL FELT INDUSTRIES, INC.	258,282	0	265	258,547
123. PRODUCTOL CHEMICAL CO.	258,400	0	35	258,435
124. SAFEWAY STORES, INC.	247,954	0	7,135	255,089
125. WESTERN KRAFT CORPORATION	236,850	0	12,440	249,290
126. WITCO CHEMICAL CORPORATION	248,200	0	0	248,200
127. RED STAR INDUSTRIAL SERVICE	232,690	0	13,700	246,390
128. AMERICAN PETROFINA	218,400	100	500	243,956
129. OIL AND SOLVENT PROCESS COMPANY	238,600	0	0	238,600

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
**Third Partial Consent Decree**  
**1991**

Company	Gallons	Tons	Other	Total Volume Converted to Gallons
130. BERWIND RAILWAY SERVICE COMPANY	235,200	0	600	235,800
131. LUXFER U.S.A. LIMITED	219,791	0	15,800	235,591
132. JAYBEE MANUFACTURING COMPANY, INC.	227,338	30	280	235,127
133. MCAULEY OIL CO.	229,320	0	0	229,320
134. FLYING TIGERS, INC.	226,386	0	2,500	228,886
135. MOTOR PROCESSORS, INC.	221,610	0	100	221,710
136. TODD SHIPYARDS CORPORATION	218,776	0	336	219,112
137. UNITED AIRLINES	215,642	0	3,000	218,642
138. CONTINENTAL AIRLINES	217,600	0	200	217,800
139. ZOLATONE PROCESS INCORPORATED	209,774	8	265	212,041
140. WILMINGTON LIQUID BULK	210,210	0	260	210,470
141. TREE ISLAND STEEL	210,210	0	125	210,335
142. GLASTEEL INDUSTRIES LAMINATES, INC.	208,270	0	100	208,370
143. FILON DIV. OF SOHIO CHEMICAL CO.	207,980	0	375	208,355
144. PUREX CORPORATION **	125,630	0	150	206,465
145. B.J. SERVICE EQUIPMENT COMPANY **	136,920	0	180	204,930
146. GENERAL LATEX AND CHEMICAL CORP.	202,400	0	100	202,500
147. ANAHEIM FOUNDRY	202,062	0	150	202,212
148. LEVINE (TED) COOPERAGE	155,616	180	700	201,517
149. GEMINI INDUSTRIES, INC.	191,480	0	7,000	198,480
150. GOULD INC.	198,190	0	0	198,190
151. THOMPSON DRILLING COMPANY	195,300	0	1,700	197,000
152. DECALTA OIL CO.	195,636	0	0	195,636
153. BERNARD EPPS AND COMPANY	194,460	0	610	195,070
154. BEHR PROCESS	194,200	0	0	194,200
155. AMERON STEEL CORP.	193,580	0	150	193,730
156. PRECISION HEAT TREATING COMPANY	184,610	35	55	193,417
157. ARMCO-NATIONAL SUPPLY	192,250	0	0	192,250
158. BORDEN CHEMICAL COMPANY	192,005	0	160	192,165
159. WESTERN CHEMICAL	181,750	0	9,650	191,400
160. RED-SPUDS OF AMERICA	190,890	0	55	190,945
161. ZACKY FOODS COMPANY	188,870	0	250	189,120
162. CASEX OIL COMPANY	187,530	0	1,200	188,730
163. CELANESE COATINGS	187,980	0	55	188,035
164. GRAY TRUCK CO.	186,480	0	190	186,670
165. PETRO-LEWIS CORPORATION	184,480	0	120	184,600
166. PRECO, INC.	184,540	0	30	184,570
167. PABST BREWING CO.	181,300	0	2,550	183,850
168. REISNER METALS, INC.	183,120	0	0	183,120
169. SUPRACOTE, INC.	182,835	0	255	183,090
170. HI-PRODUCTION FORGE	180,174	0	65	180,239
171. KENOSHA AUTO TRANSPORT	179,760	0	0	179,760
172. BLACKTOP MATERIAL COMPANY	179,550	0	0	179,550

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
**Third Partial Consent Decree**  
**1991**

				Total Volume Converted to Gallons
Company	Gallons	Tons	Other	
173. GATX CORPORATION	178,920	0	120	179,040
174. VAN WATERS AND ROGERS	178,500	0	0	178,500
175. BARON AIRCRAFT REFINISHERS	174,548	0	3,500	178,048
176. AMERICAN CAN COMPANY, INC.	175,490	0	25	175,515
177. COOPER AND BRAIN OIL CO.	175,200	0	250	175,450
178. MCFARLAND ENERGY	174,300	0	0	174,300
179. UNITED STATES GYPSUM	148,470	100	240	173,750
180. LONGVIEW FIBRE COMPANY	172,830	0	645	173,475
181. LEVER BROTHERS	171,520	0	1,460	172,980
182. MASTER PROCESSING CORP.	170,562	0	75	170,637
183. DAVIDSON PANEL	169,260	0	0	169,260
184. EKCO PRODUCTS, INC.	169,220	0	0	169,220
185. CONROCK COMPANY	167,860	0	90	167,950
186. AMTRAK - NATIONAL RR PASSENGER CO.	160,800	0	6,000	166,800
187. FORD MOTOR COMPANY	166,010	0	20	166,030
188. MAX FACTOR COMPANY	150,541	0	14,008	164,549
189. SEVEN-UP BOTTLING CO. OF L.A.	162,170	0	0	162,170
190. COCA-COLA BOTTLING COMPANY OF L.A.	161,742	0	0	161,742
191. INTERNATIONAL EXTRUSION	160,230	0	260	160,490
192. HELLMAN ESTATES OIL CO.	155,720	0	4,700	160,420
193. OWENS-ILLINOIS	159,540	0	310	159,850
194. UNITED PARCEL SERVICE OF AMERICA	159,460	0	0	159,460
195. UNITED FOAM CORPORATION	157,570	0	0	157,570
196. WEST CHEMICAL PRODUCTS	156,900	0	0	156,900
197. FIBREBOARD CORPORATION	156,090	0	0	156,090
198. DEFT, INC.	155,743	0	240	155,983
199. CROWN ZELLERBACH	154,318	0	240	154,558
200. DEUTSCH CO.	152,140	0	1,535	153,675
201. ROYAL INDUSTRIES, INTERNATIONAL	152,820	0	0	152,820
202. WESLOCK CO.	131,485	0	21,060	152,545
203. INGLEWOOD, CITY OF	151,860	0	0	151,860
204. LOS ANGELES, CITY OF	136,652	0	14,050	150,702
205. LATCHFORD GLASS CO.	150,340	0	275	150,615
206. ROYAL ALUMINUM	150,346	0	100	150,446
207. DR. PEPPER BOTTLING CO.	144,440	0	5,000	149,440
208. SPARKLETT'S DRINKING WATER CORP.	148,807	0	400	149,207
209. RENTA UNIFORM	143,490	0	4,000	147,490
210. ST. REGIS PAPER CO.	145,556	0	545	146,101
211. PRUDENTIAL OVERALL	144,272	0	910	145,182
212. PACIFIC TUBE CO.	133,720	0	9,550	143,270
213. HYDRIL COMPANY	142,810	0	0	142,810
214. STARKIST FOODS	142,800	0	0	142,800
215. GEORGIA PACIFIC CORPORATION	142,250	0	330	142,580

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
**Third Partial Consent Decree**  
**1991**

				Total Volume Converted to Gallons
Company	Gallons	Tons	Other	
216. CAPITOL METALS CO., INC.	141,680	0	100	141,780
217. LANGLOIS FLOUR	140,580	0	0	140,580
218. PACIFIC PUMPS	139,969	0	0	139,969
219. MORGAN (V.B.) CO.	138,220	0	55	138,275
220. ICX	136,500	0	1,000	137,500
221. INLAND CONTAINER	136,830	0	0	136,830
222. INTERNATIONAL RECTIFIER	135,270	0	50	135,320
223. HERTZ CORPORATION	134,770	0	125	134,895
224. LUNDAY-THAGARD OIL CO.	133,980	0	0	133,980
225. NU CAR PREP	133,980	0	0	133,980
226. MAGCOBAR	133,810	0	100	133,910
227. ENERGY PRODUCTION	133,560	0	0	133,560
228. STANDUN MACHINE	132,972	0	100	133,072
229. MCCULLOCH CORPORATION	127,190	0	5,675	132,865
230. INTERSTATE BRANDS BAKERY	132,380	0	420	132,800
231. GENERAL ELECTRIC CO.	132,240	0	180	132,420
232. GREAT LAKES PROPERTIES	131,250	0	50	131,300
233. VAN DER HORST CORPORATION	130,110	0	200	130,310
234. KNUDSEN CORPORATION	129,000	0	50	129,050
235. CENTURY OIL MANAGEMENT CO.	127,470	0	300	127,770
236. CHROME CRANKSHAFT	126,840	0	0	126,840
237. TELEDYNE	126,060	0	0	126,060
238. MCKENZIE ORO NEGRO CO.	125,800	0	100	125,900
239. ARMSTRONG CORK CO.	125,540	0	210	125,750
240. SHASTA BEVERAGE	125,370	0	150	125,520
241. R & R INDUSTRIAL WASTE HAULERS	114,035	0	10,700	124,735
242. R & D LATEX	120,960	0	500	121,460
243. VOI-SHAN	112,255	0	8,955	121,210
244. MARQUARDT CO.	112,840	0	8,300	121,140
245. OLYMPIC PAINT AND CHEMICAL CO.	119,100	0	200	119,300
246. BENDIX CORP.	115,590	0	3,685	119,275
247. PRINCESS CRUISE LINES	118,230	0	300	118,530
248. SYNKOLOID CO.	117,180	0	0	117,180
249. SOUTHWEST FOREST INDUSTRIES	115,920	0	100	116,020
250. PERVO PAINT CO.	115,920	0	75	115,995
251. PIONEER-FLINTKOTE	115,920	0	0	115,920
252. INMONT INK CORP.	113,585	0	2,070	115,655
253. GRANT OIL TOOL CO.	110,770	0	3,550	114,320
254. QUALITY METAL FINISHING	114,240	0	30	114,270
255. THRIFTIMART	113,800	0	50	113,850
256. WEISER LOCK COMPANY	110,603	0	2,873	113,476
257. MANUFACTURES WIRE CORPORATION	112,810	0	0	112,810
258. BEYLIK DRILLING	112,560	0	0	112,560

**EXHIBIT-E**  
**Operating Industries, Inc. Volumetric Totals \***  
 Third Partial Consent Decree  
 1991

Company	Gallons	Tons	Other	Total Volume Converted to Gallons
259. JOHN (B.P.) FURNITURE	111,740	0	0	111,740
260. BIRD AND SON INC.	110,710	0	400	111,110
261. NANCE, G.R.	110,670	0	100	110,770
262. RENTEX	110,250	0	290	110,540
263. CHALLENGE DAIRY FOODS	110,024	0	70	110,094
264. ELECTRONIC RECLAMATION	110,000	0	0	110,000
265. COCA-COLA COMPANY	29,780	0	0	29,780
266. DIAL CORPORATION	4,200	0	0	4,200

\* Volumes listed are subject to change as more information is gathered.

\*\* The volume for these companies includes volumes listed in Exhibit F.



**EXHIBIT-F**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Schedule A**

Company	Total Volume Converted to Gallons	Escrow Account Payment
1. Atochem North America, Inc. *		
for M & T Metals	120	\$154
and M & T Plating	3,100	\$3,968
and M & T Chemicals	27,780	\$35,558
and Pennwalt	49,685	\$63,597
2. Borg Warner Corporation ** (Byron Jackson Pump Division)	7,770	\$9,946
3. Champion International Corporation ** (St. Regis Paper Co.)	630	\$806
4. Chrysler Corporation ** (Nu Car Prep)	2,000	\$2,560
5. Delta Air Lines, Inc. ** (Western Airlines)	16,090	\$20,595
6. Ferro Corporation ** (Productol Chemical Co.)	9,240	\$11,827
7. Henkel Corporation ** (Emery Chemicals)	48,216	\$61,716
8. Ingersoll Rand Company ** (Proto Tool Company)	3,150	\$4,032
9. Westinghouse Electric Corporation** (Seven Up Bottling Co. of L.A.)	25,722	\$32,924

**United States' Past Response Costs**

Payments listed under "Escrow Account Payment" shall be paid by certified check within 30 days of notice by the United States of entry of the Consent Decree to the address given in the notice of entry. The notice shall also specify to whom the check is to be made payable.

- \* This Defendant is also listed as a Work Defendant in Exhibit D. Inclusion of this Defendant in this Exhibit shall not alter its status as a Work Defendant for the purpose of this Consent Decree. The volume for this Defendant has been combined with the volume for "Purex" in Exhibit E.
- \* \* This Defendant is also listed as a Work Defendant in Exhibit D on behalf of the party listed above in parentheses. Inclusion of this Defendant in this Exhibit shall not alter its status as a Work Defendant for the purpose of this Consent Decree.

**EXHIBIT-F**  
**Operating Industries, Inc.**  
**Third Partial Consent Decree**  
**Schedule B**

Company	Total Volume Converted to Gallons	Escrow Account Payment
---------	--------------------------------------	---------------------------

- |   |        |          |
|---|--------|----------|
| 1. B.J. Services Company *<br>for B.J. Hughes | 67,830 | \$86,822 |
|---|--------|----------|

**United States' Past Response Costs**

Payments listed under "Escrow Account Payment" shall be paid by certified check within 30 days of notice by the United States of entry of the Consent Decree to the address given in the notice of entry. The notice shall also specify to whom the check is to be made payable.

- \* The volume for this Defendant has been combined with the volume for "B.J. Services Equipment Company" in Exhibit-E.

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Account

UNITED STATES DISTRICT COURT  
FOR THE CENTRAL DISTRICT OF CALIFORNIA

UNITED STATES OF AMERICA, et al., )  
Plaintiffs, )  
v. )  
CHEVRON CHEMICAL COMPANY, et al., )  
Defendants. )

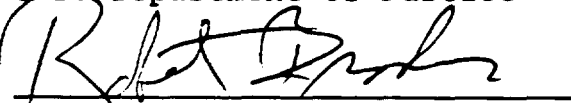
No. CV 91 6520 JGD WRx

NOTICE OF LODGING OF  
THIRD PARTIAL CONSENT  
DECREE

1 Pursuant to 28 C.F.R. § 50.7 and 42 U.S.C. § 9622(d)(2), a  
2 proposed Third Partial Consent Decree is being concurrently  
3 lodged in this action with the Court to allow for a public  
4 comment period, prior to entry of the Decree in this civil  
5 action. After the requisite Federal Register notice is  
6 published announcing the public comment period, the time period  
7 for comments has run, and the comments, if any, have been  
8 evaluated, the Court will be advised as to any action which may  
9 be required by the Court at that time, including whether it is  
10 appropriate that the Third Partial Consent Decree be entered.  
11 During the pendency of the Federal Register comment period, no  
12 action is required of the Court, and the United States requests  
13 that the Court take no action regarding the Decree. No proposed  
14 Order has been presently filed and an Order for entry of the  
15 Decree will be submitted at the time a motion to enter the  
16 decree is filed.

17 Respectfully submitted,

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19 Acting Assistant Attorney General  
20 Environment and Natural Resources  
21 Division  
22 U.S. Department of Justice

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22 Substance Account

23 UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

24 UNITED STATES OF AMERICA, )  
25 THE STATE OF CALIFORNIA, and ) No. CV  
26 THE CALIFORNIA HAZARDOUS )  
SUBSTANCE ACCOUNT, ) COMPLAINT FOR  
27 Plaintiffs, ) INJUNCTIVE RELIEF  
AND COST RECOVERY  
28 v. )  
CHEVRON CHEMICAL COMPANY; CHEVRON PIPE )

1 LINE CO.; CHEVRON USA, INC.; TEXACO INC.; )  
2 ATLANTIC RICHFIELD COMPANY; AMERICAN )  
3 NATIONAL CAN; EXXON CORPORATION; MCDONNELL )  
4 DOUGLAS CORPORATION; UNION OIL COMPANY )  
5 OF CALIFORNIA; NORRIS INDUSTRIES, INC., )  
6 NI INDUSTRIES, INC., a MASCO INDUSTRIES )  
7 subsidiary; SHELL OIL COMPANY; ORYX )  
8 ENERGY COMPANY; OCCIDENTAL PETROLEUM )  
9 CORPORATION; MOBIL OIL CORPORATION; )  
10 SOUTHERN CALIFORNIA GAS COMPANY; )  
11 CROWN BEVERAGE PACKAGING, INC. )  
12 (formerly named Continental Beverage )  
13 Packaging, Inc. and successor to )  
14 Continental Can Company, Inc.); SANTA FE )  
15 ENERGY COMPANY/C.W.O.D.; MARTIN MARIETTA )  
16 CORPORATION on behalf of COMMONWEALTH )  
17 ALUMINUM CORPORATION (formerly known as )  
18 MARTIN MARIETTA ALUMINUM, INC.); UNION )  
19 PACIFIC RESOURCES COMPANY; CONOCO INC.; )  
20 DOUGLAS OIL CO.; SOULE-ARNON LIQUIDATING )  
21 AGENCY; GENERAL MOTORS CORPORATION; )  
22 LOCKHEED CORPORATION, and LOCKHEED )  
23 AERONAUTICAL SYSTEMS COMPANY DIVISION; )  
24 LONG BEACH OIL DEVELOPMENT COMPANY; )  
25 BETHLEHEM STEEL CORPORATION; )  
26 ALUMINUM COMPANY OF AMERICA; SOUTHERN )  
27 CALIFORNIA RAPID TRANSIT DISTRICT; )  
28 ALLIED SIGNAL, INC. for GARRETT AIRESEARCH )  
and BENDIX; KEYSOR CENTURY CORPORATION; )  
THE STROH BREWERY COMPANY; UNIROYAL, INC. )  
by the UNIROYAL GOODRICH TIRE COMPANY )  
as successor in interest; AMERICAN )  
AIRLINES, INC.; BETZ LABORATORIES, INC.; )  
DEPARTMENT OF WATER AND POWER of the CITY )  
of LOS ANGELES; HENKEL CORPORATION for )  
itself and for EMERY CHEMICALS DIVISION; )  
KERN FOODS, INC. SHAREHOLDERS' LIQUIDATING )  
TRUST; SOUTHERN CALIFORNIA EDISON COMPANY; )  
MITCHELL ENERGY CORPORATION; REYNOLDS )  
METALS COMPANY; CALGON CORPORATION; )  
PPG INDUSTRIES, INC.; BORG-WARNER )  
CORPORATION for BYRON JACKSON PUMP )  
DIVISION; PARKER-HANNIFIN CORPORATION; )  
E.B. KING for SOUTHERN CALIFORNIA CHEMICAL )  
COMPANY; LIBERTY VEGETABLE OIL COMPANY; )  
UNITED STATES BRASS CORPORATION, dba )  
EASTMAN CENTRAL; INGERSOLL-RAND COMPANY )  
for itself and for PROTO TOOL COMPANY, )  
INC.; LONG BEACH UNIT, WILMINGTON OIL )  
FIELD, CALIFORNIA (CITY OF LONG BEACH, )  
UNIT OPERATOR: THUMS LONG BEACH COMPANY, )  
AGENT FOR FIELD CONTRACTOR); GROW GROUP )  
INC. on behalf of AMERITONE PAINT )  
CORPORATION and TREWAX DIVISION; XEROX )

CORPORATION; MENASCO AEROSYSTEMS DIVISION )  
 CALIFORNIA OPERATION DIVISION OF COLTEC )  
 INDUSTRIES INC.; TRW INC.; REICHHOLD )  
 CHEMICALS, INC.; HOLLYTEX CARPET MILLS/USG )  
 CORPORATION; CROWLEY MARITIME CORPORATION )  
 on behalf of its wholly owned subsidiaries )  
 CROWLEY TOWING & TRANSPORTATION CO. and )  
 CROWLEY ENVIRONMENTAL SERVICES CORPORATION;) )  
 CONTAINER CORPORATION OF AMERICA; SOUTHERN )  
 PACIFIC TRANSPORTATION COMPANY; NL )  
 INDUSTRIES, INC. sued herein as NL METALS; )  
 SENIOR ENGINEERING COMPANY; PROMARK GROUP )  
 WEST for MAJOR PAINT COMPANY; H & L TOOTH )  
 COMPANY for PRECISION HEAT TREATING )  
 COMPANY and HI-PRODUCTION FORGE COMPANY; )  
 ANCHORLOK CORPORATION; COOPER DRUM CO. for )  
 SUPERIOR DRUM; HUGHES AIRCRAFT COMPANY; )  
 SUPERIOR INDUSTRIES INTERNATIONAL, INC.; )  
 FLINT INK CORPORATION; THE TIMES MIRROR )  
 COMPANY, LOS ANGELES TIMES DIVISION and )  
 TIMES MIRROR PRESS; HUNT-WESSON, INC.; )  
 WATERFORD WEDGEWOOD USA INC. for )  
 FRANCISCAN CERAMICS; DELTA AIR LINES, INC., )  
 for itself and for WESTERN AIRLINES; )  
 EMERSON & CUMING, INC.; B&C PLATING )  
 COMPANY; INTERNATIONAL PAPER COMPANY; )  
 ROCKWELL INTERNATIONAL CORPORATION; THE )  
 PROCTER AND GAMBLE MANUFACTURING COMPANY; )  
 DRESSER INDUSTRIES INC. for MACOBAR AND )  
 PACIFIC PUMPS; MAYTAG CORPORATION; )  
 BRIDGESTONE/FIRESTONE, INC.; CARNATION )  
 COMPANY; WELCHES OVERALL CLEANING )  
 COMPANY, INC.; DUNN-EDWARDS CORPORATION; )  
 TRANSPORTATION LEASING CO.; CLOUGHERTY )  
 PACKING COMPANY; "21" INTERNATIONAL )  
 HOLDINGS, INC., formerly GENERAL FELT )  
 INDUSTRIES; FERRO CORPORATION for itself )  
 and for PRODUCTOL CHEMICAL DIVISION; )  
 SAFEWAY INC.; WILLAMETTE INDUSTRIES, INC.; )  
 ARATEX SERVICES, INC. for and d/b/a )  
 RED STAR INDUSTRIAL SERVICE; OIL AND )  
 SOLVENT PROCESS CO., a subsidiary of )  
 Chemical Waste Management, Inc.; )  
 BERWIND RAILWAY SERVICE COMPANY; )  
 LUXFER USA LIMITED; MCAULEY LCX )  
 CORPORATION, formerly McAuley Oil )  
 Company; FEDERAL EXPRESS CORPORATION; )  
 UNITED AIR LINES, INC.; SURFACE )  
 PROTECTION INDUSTRIES, INC. on behalf )  
 of ZOLATONE PROCESS, INC.; WILMINGTON )  
 LIQUID BULK TERMINALS; TREE ISLAND )  
 INDUSTRIES LTD.; GENERAL LATEX AND )  
 CHEMICAL CORPORATION; GOULD INC.; DECALTA )  
 OIL COMPANY; VEST, INC. (formerly known )



1 as BERNARD EPPS & CO.); BEHR PROCESS )  
 2 CORPORATION; ARMCO INC.; BORDEN, INC.; )  
 3 SOCO-WESTERN CHEMICAL CORPORATION for )  
 4 WESTERN CHEMICAL & MANUFACTURING CO.; )  
 5 FREEPORT-MCMORAN OIL AND GAS COMPANY, )  
 6 a division of Freeport-McMoran Inc., )  
 7 successor by mergers to PETRO-LEWIS )  
 8 CORPORATION; REISNER METALS, INC.; )  
 9 SUPRACOTE, INC.; KENOSHA AUTO TRANSPORT )  
 10 CORPORATION; BLACKTOP MATERIALS COMPANY; )  
 11 GATX TERMINALS CORPORATION; VAN WATERS & )  
 12 ROGERS INC.; PRIMERICA HOLDINGS, INC.; )  
 13 COOPER & BRAIN, INC.; UNITED STATES )  
 14 GYPSUM COMPANY; LONGVIEW FIBRE COMPANY; )  
 15 CONOPCO, INC.; MASTER PROCESSING )  
 16 CORPORATION; PLYWOOD PANELS INC., )  
 17 formerly DAVIDSON P.W.P.; PACKAGING )  
 18 CORPORATION OF AMERICA for EKCO PRODUCTS; )  
 19 CALMAT CO.; AMTRAK - NATIONAL RAILROAD )  
 20 PASSENGER CORPORATION; FORD MOTOR COMPANY; )  
 21 RLL CORPORATION (formerly known as MAX )  
 22 FACTOR & CO.); WESTINGHOUSE ELECTRIC )  
 23 CORPORATION for itself and for SEVEN-UP )  
 24 BOTTLING CO., OF L.A.; COCA-COLA BOTTLING )  
 25 COMPANY OF LOS ANGELES; INTERNATIONAL )  
 26 EXTRUSION CORPORATION; HELLMAN PROPERTIES; )  
 27 OWENS-ILLINOIS, INC. on behalf of itself )  
 28 and its present and former subsidiaries )  
 Libbey Glass, Inc., Owens-Brockway Glass )  
 Container Inc. and Nekoosa Packaging )  
 Corporation, successor by merger to OI Los )  
 Angeles STS Inc.; UNITED PARCEL SERVICE, )  
 INC.; FIBREBOARD CORPORATION; DEFT, INC.; )  
 JAMES RIVER II, INC., for CROWN ZELLERBACH, )  
 successor in interest with respect to )  
 Sheila Street and Garfield Avenue Paints; )  
 GAYLORD CONTAINER CORPORATION, for CROWN )  
 ZELLERBACH, successor in interest for )  
 Baldwin Park Boulevard Plant; DEUTSCH )  
 COMPANY; ROYAL INDUSTRIES; ALCOA )  
 COMPOSITES, INC., on behalf of WESTLOCK )  
 DIVISION; CITY OF INGLEWOOD; CITY OF LOS )  
 ANGELES; LATCHFORD GLASS COMPANY; ROYAL )  
 ALUMINUM; MCKESSON WATER PRODUCTS COMPANY )  
 formerly SPARKLETTS DRINKING WATER CORP.; )  
 RENTA UNIFORM; CHAMPION INTERNATIONAL )  
 CORPORATION for itself and for ST. REGIS; )  
 PRUDENTIAL OVERALL SUPPLY; PACIFIC TUBE )  
 COMPANY; HYDRIL COMPANY; STARKIST FOODS, )  
 INC.; GEORGIA-PACIFIC CORPORATION; BJ )  
 SERVICES COMPANY (formerly BJ Service )  
 Equipment Company); INLAND CONTAINER )  
 CORPORATION; THE HERTZ CORPORATION; )

1 CHRYSLER CORPORATION for itself and for NU )  
2 CAR PREP SYSTEMS, INC.; BLACK AND DECKER )  
3 CORPORATION on behalf of MCCULLOCH )  
4 CORPORATION; INTERSTATE BRANDS CORPORATION; )  
5 GENERAL ELECTRIC COMPANY; CHROME CRANKSHAFT )  
6 CO., INC.; TELEDYNE CAST PRODUCTS; TELEDYNE )  
7 LAARS; TELEDYNE LINAIR; TELEDYNE )  
8 MICROELECTRONICS; TELEDYNE POST; TELEDYNE )  
9 SPRAGUE ENGINEERING; ATOCHEM NORTH AMERICA, )  
10 INC. (PUREX) for itself and for M & T )  
11 METALS, M & T PLATING, M & T CHEMICALS and )  
12 PENNWALT; ARMSTRONG WORLD INDUSTRIES, INC.; )  
13 SHASTA BEVERAGES, INC.; MYRDIN INC.; VOI )  
14 SHAN; SOUTHWEST FOREST INDUSTRIES, INC.; )  
15 PERVO PAINT COMPANY; THE FLINTKOTE COMPANY; )  
16 BASF CORPORATION on behalf of INMONT INK )  
17 CORPORATION; GRANT OIL TOOL COMPANY )  
18 (a MASCO INDUSTRIES CO., dba MASX ENERGY )  
19 SERVICES GROUP, INC.); NORRIS INDUSTRIES, )  
20 INC./WEISER LOCK DIVISION; BIRD CORP. )  
21 (BIRD AND SON INC.); and COCA COLA USA, )  
22 a division of THE COCA-COLA COMPANY, )

23 Defendants. )  
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14 The United States of America ("United States"), on  
15 behalf of the Administrator of the United States Environmental  
16 Protection Agency ("EPA"); the State of California, on behalf of  
17 the Department of Toxic Substances Control ("Department"); and  
18 the Hazardous Substance Account ("Account"), (collectively  
19 referred to hereafter as "plaintiffs"), allege as follows:

20 PRELIMINARY STATEMENT

21 1. This is a civil action by the United States for  
22 injunctive relief and cost recovery under Sections 106 and 107  
23 of the Comprehensive Environmental Response, Compensation, and  
24 Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9606  
25 and 9607.

26 2. This is also a civil action by the State of  
27 California on behalf of the Department of Toxic Substances  
28

1 Control and the Hazardous Substance Account, for cost recovery  
2 and injunctive relief under Section 107 of CERCLA, 42 U.S.C.  
3 § 9607, Sections 205 and 25300-25393 of the California Health  
4 and Safety Code, and Section 3494 of the California Civil Code.

5 3. This action involves a facility in Monterey Park,  
6 California, known as the Operating Industries, Inc. landfill  
7 ("OII site" or "the Site"). Plaintiffs seek to recover costs  
8 incurred by EPA, the Department, and the Account in conducting  
9 response actions at the OII site. Plaintiffs also ask that the  
10 defendants be enjoined to implement portions of the remedial  
11 action specified in EPA's Record of Decision for the Gas  
12 Migration Control and Landfill Cover Operable Unit.

13 JURISDICTION AND VENUE

14 4. This Court has jurisdiction over the claims of the  
15 United States in this action pursuant to Sections 106 and 113(b)  
16 of CERCLA, 42 U.S.C. §§ 9606 and 9613(b), and 28 U.S.C. §§ 1331  
17 and 1345.

18 5. This Court has jurisdiction over the federal claim  
19 of the Department pursuant to 28 U.S.C. § 1331 and 42 U.S.C.  
20 § 9613(b). This Court has pendent jurisdiction over the state  
21 law claims asserted by the Department and the Account.

22 6. Venue is proper in this district under Section  
23 113(b) of CERCLA, 42 U.S.C. § 9613(b), and 28 U.S.C. § 1391(b),  
24 because the release or threatened release of hazardous  
25 substances that gave rise to these claims occurred in this  
26 district and because the OII site is located in this district.

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PARTIES

7. Plaintiff, the United States of America, is acting at the request of the United States Environmental Protection Agency, an agency of the United States.

8. Plaintiff, the Department, is a public agency of the State of California, created and existing under Section 100 et seq. of the California Health and Safety Code. The Department is charged with administering and enforcing the Hazardous Substance Account Act, California Health and Safety Code Section 25300 et seq. ("HSA").

9. Plaintiff, the Account, is an account in the state's General Fund created by the HSA. Pursuant to Sections 25331 and 25361 of the California Health and Safety Code, the Account may sue in its own name, shall be made a party in any action for the recovery of moneys expended from the Account, and shall be represented by the State Attorney General in such cost recovery actions.

10. Each defendant is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21), and in Health and Safety Code Section 25319, and did business with Operating Industries, Inc.

GENERAL ALLEGATIONS

11. The OII site is a 190-acre "facility," as that term is defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9), and in Health and Safety Code Section 25310. The Site is located at 900 Potrero Grande Drive, Monterey Park, California. The facility operated from 1948 through 1984, and,

1 over the course of the facility's operation, industrial wastes  
2 and municipal trash were disposed of at the Site. Wastes  
3 accepted at the OII site for disposal included "hazardous  
4 substances" as defined in Section 101(14) of CERCLA, 42 U.S.C.  
5 § 9601(14), and in Health and Safety Code Sections 25316 and  
6 25317.

7 12. In May 1986, EPA listed the Site as a hazardous  
8 substance site on the National Priorities List, promulgated by  
9 EPA pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, and  
10 codified at 40 C.F.R. Part 300, App. B.

11 13. There have been "releases" of hazardous substances  
12 from the Site, within the meaning of Section 101(22) of CERCLA,  
13 42 U.S.C. § 9601(22), and Health and Safety Code Section 25320  
14 and the Site poses numerous threats to human health and the  
15 environment. Actual or threatened releases of hazardous  
16 substances into the environment from the Site continue, within  
17 the meaning of Section 101(22) of CERCLA, 42 U.S.C. § 9601(22),  
18 and Health and Safety Code Section 25320. Population near the  
19 Site includes the residents of the cities of Montebello and  
20 Monterey Park.

21 14. Each of the defendants, by contract, agreement, or  
22 otherwise, arranged for disposal or arranged with a transporter  
23 for disposal of "hazardous substances" owned by such defendant  
24 at the OII site, as defined in Section 101(14) of CERCLA, 42  
25 U.S.C. § 9601(14), and in Health and Safety Code Sections 25316  
26 and 25317.

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1           19. The EPA Regional Administrator, Region IX, has  
2 determined that there is or may be an imminent and substantial  
3 endangerment to the public health or welfare or the environment  
4 at the OII site because of the release and threatened release of  
5 hazardous substances.

6           20. Defendants are jointly and severally liable for  
7 injunctive relief to perform the remedial alternative selected  
8 in the ROD for the third operable unit, for landfill gas  
9 migration control and landfill cover, described above. This  
10 complaint seeks performance of only a portion of the third  
11 operable unit.

12                           SECOND CLAIM FOR RELIEF

13                           (CLAIM OF THE UNITED STATES PURSUANT TO  
14                           CERCLA SECTION 107(a), 42 U.S.C. § 9607(a))

15           21. Paragraphs 1-14 are incorporated herein by  
16 reference.

17           22. The release or threatened release of hazardous  
18 substances from the OII site has caused the United States to  
19 incur response costs, including interest, at the OII site, as  
20 defined in 42 U.S.C. § 9601(25), amounting to approximately \$18  
21 million from June 1, 1988 through December 31, 1990. The United  
22 States has and is incurring additional response costs and will  
23 continue to incur additional response costs at the Site.

24           23. The response actions taken by the United States  
25 include investigations and studies to determine the nature and  
26 extent of contamination at the OII site, and to evaluate  
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1 remedial alternatives for the Site, and enforcement activities  
2 related thereto.

3 24. The United States' actions taken at the OII site  
4 and the costs incurred by the United States in connection with  
5 the Site were not inconsistent with the National Contingency  
6 Plan, as codified at 40 C.F.R. Part 300.

7 25. The United States has satisfied any conditions  
8 precedent to the undertaking of response actions, to the  
9 incurrence of response costs, and to the recovery of those costs  
10 under Section 107 of CERCLA, 42 U.S.C. § 9607.

11 26. Under Section 107(a) of CERCLA, 42 U.S.C.  
12 § 9607(a), each of the defendants is jointly and severally  
13 liable to the United States for all response costs incurred by  
14 the United States with respect to the OII site.

15 THIRD CLAIM FOR RELIEF

16 (CLAIM OF THE DEPARTMENT PURSUANT TO

17 CERCLA SECTION 107(a), 42 U.S.C. § 9607(a))

18 27. Paragraphs 1-14 are incorporated herein by  
19 reference.

20 28. The release or threatened release of hazardous  
21 substances from the OII site has caused the Department to incur  
22 response costs, including interest, at the OII site, within the  
23 meaning of Section 101(25) of CERCLA, 42 U.S.C. § 9601(25),  
24 amounting to approximately \$125,000 from June 1, 1988 through  
25 December 31, 1990.

26 29. The response actions taken by the Department  
27  
28



1 include participation in investigations and studies at the OII  
2 site.

3 30. The Department's actions taken at the OII site and  
4 the costs incurred by the Department in connection with the Site  
5 were not inconsistent with the National Contingency Plan, as  
6 codified at 40 C.F.R. Part 300.

7 31. The Department has satisfied any conditions  
8 precedent to the undertaking of response actions, to the  
9 incurrence of response costs, and to the recovery of those costs  
10 under Section 107 of CERCLA, 42 U.S.C. § 9607.

11 32. Under Section 107(a) of CERCLA, 42 U.S.C.  
12 § 9607(a), each of the defendants is jointly and severally  
13 liable to the Department for all response costs incurred by the  
14 Department with respect to the OII site.

15 FOURTH CLAIM FOR RELIEF

16 (CLAIM OF THE DEPARTMENT AND THE ACCOUNT PURSUANT  
17 TO THE CALIFORNIA HAZARDOUS SUBSTANCE ACCOUNT ACT,  
18 CALIFORNIA HEALTH AND SAFETY CODE SECTION 25300-25393)

19 33. Paragraphs 1-14 and 27-32 are incorporated herein  
20 by reference.

21 34. Section 25330 of the California Health and Safety  
22 Code created the Account, an account in the California General  
23 Fund, administered by the Department and funded by a tax on the  
24 disposal of hazardous waste.

25 35. Funds in the Account may be expended by the State  
26 of California for all costs of removal and remedial action in  
27  
28

1 response to a release or threatened release of a hazardous  
2 substance.

3 36. The defendants, and each of them, are "liable  
4 persons" within the meaning of Section 25323.5 of the California  
5 Health and Safety Code.

6 37. The defendants are liable to the Department and  
7 the Account under Health and Safety Code Section 25360 for all  
8 response costs incurred by the Department and the Account with  
9 respect to the Site.

10 FIFTH CLAIM FOR RELIEF

11 (CLAIM OF THE DEPARTMENT PURSUANT TO SECTION 3494  
12 OF THE CALIFORNIA CIVIL CODE AND SECTION 205  
13 OF THE CALIFORNIA HEALTH AND SAFETY CODE)

14 38. Paragraphs 1-14 are incorporated herein by  
15 reference.

16 39. Civil Code Section 3494 provides that a public  
17 nuisance may be abated by any public body or officer authorized  
18 by law.

19 40. Pursuant to Health and Safety Code Section 205,  
20 the Department is authorized to file a civil action to enjoin a  
21 public nuisance dangerous to health.

22 41. The presence of hazardous substances at the  
23 facility and the release of such hazardous substances into the  
24 environment constitutes a public nuisance, dangerous to the  
25 health of the surrounding community, and indecent and offensive  
26 to the senses of persons in the entire community surrounding the  
27  
28

1 facility, within the meaning of Sections 3479 and 3480 of the  
2 California Civil Code.

3 42. Defendants, and each of them, by disposing of  
4 hazardous substances at the facility, contributed to the  
5 creation of a public nuisance caused by the release of hazardous  
6 substances at the facility.

7 43. Defendants, and each of them, are responsible for  
8 taking actions to abate the public nuisance existing at the  
9 facility.

10 PRAYER FOR RELIEF

11 WHEREFORE, plaintiffs request that the Court:

12 1. Order the defendants, jointly and severally, to  
13 perform the remedy set forth in EPA's Record of Decision for the  
14 third operable unit at the OII site for landfill gas migration  
15 control and landfill cover, excluding long-term operation and  
16 maintenance; and

17 2. Enter judgment against the defendants, jointly and  
18 severally, for all costs incurred by the United States, the  
19 Department, and the Account in connection with the OII site from  
20 June 1, 1988 through December 31, 1990, which costs were  
21 approximately \$18 million.

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Respectfully submitted,



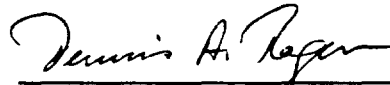
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22 Account

22 UNITED STATES DISTRICT COURT  
23 FOR THE CENTRAL DISTRICT OF CALIFORNIA

23 UNITED STATES OF AMERICA, et al., )  
24 ) No. CV  
25 Plaintiffs, )  
26 )  
27 v. ) NOTICE OF RELATED CASE  
28 CHEVRON CHEMICAL COMPANY, et al., )  
29 )  
30 Defendants. )

1 TO THE HONORABLE UNITED STATES DISTRICT COURT FOR THE  
2 CENTRAL DISTRICT OF CALIFORNIA:

3 PLEASE TAKE NOTICE that pursuant to Local Rule 4.3, the  
4 following pending action is related to the instant action:

5 United States, et al. v. Chevron Chemical Co., et al.,  
6 CV 88-7196 MRP (Kx)

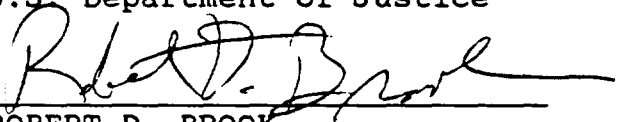
7 That action was filed in the Central District of California  
8 on December 7, 1988, along with a Partial Consent Decree  
9 simultaneously resolving that action, for performance of certain  
10 remedial action and partial reimbursement of cleanup costs  
11 relating to the Operating Industries, Inc. landfill. That  
12 action was filed pursuant to Sections 106 and 107 of the  
13 Comprehensive Environmental Response, Compensation and Liability  
14 Act of 1980, as amended ("CERCLA"), 42 U.S.C. §§ 9606 and 9607.  
15 A Second Amended Complaint and Second Partial Consent Decree  
16 were filed and entered in that action, on September 16, 1991,  
17 and September 17, 1991, respectively, resolving the same claims  
18 against a second group of defendants.

19 In the instant action, plaintiffs have filed a Complaint and  
20 simultaneously lodged a Third Partial Consent Decree resolving  
21 the claims in the Complaint, for further cleanup actions and  
22 reimbursement of response costs at the Operating Industries,  
23 Inc. landfill. It was necessary to file a separate action  
24 regarding this settlement, rather than amending the existing  
25 Complaint, as the settling parties differ somewhat in the two  
26 actions. These two actions arise from the same transactions,

1 i.e., the disposal of waste at, and cleanup of, the Operating  
2 Industries landfill, and call for determination of the same or  
3 substantially identical questions of law and fact, particularly  
4 in evaluating the fairness of the settlements resolving these  
5 actions, and involves many of the same defendants in both  
6 actions. No party has made an appearance in this case as the  
7 Complaint has been filed simultaneous with this Notice, and thus  
8 no certificate of service has been prepared. This notice has  
9 been mailed to all parties named in the Complaint.

10 Respectfully submitted,

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12 Acting Assistant Attorney General  
13 Environment and Natural Resources  
14 Division  
15 U.S. Department of Justice

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